

POLS 201
Political Data Analysis
Spring 2008

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Office by appointment

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Office by appointment

Course Objectives: Students are to acquire a fundamental understanding of the usage of statistical analysis to examine social phenomenon, with a particular emphasis on comprehending its basic underlying principles. This includes both the rationale for using some of the more basic statistical tests, and the ability to apply those tests at an introductory level. The following topics will be covered:

- Organization and application of descriptive statistics
- Measures of central tendency
- Measures of variability
- Probability theory and distributions
- Sampling, Z-scores, and the t-distribution
- Analysis of variance (ANOVA) tests of more than 2 quantitative measures
- Chi-squared tests of relationships between categorical measures
- Correlation between 2 quantitative measures
- Correlation tests between ordinal measures
- Introductions to OLS regression and logistic regression.

Texts: Levin and Fox – *Elementary Statistics in Social Research 10th Edition*
Kirkpatrick – *A Simple Guide to SPSS, Version 14.0*

SPSS Assignments: There are four of these to be completed. Details for each assignment will be handed out two weeks before they are due. They are designed to show a rudimentary proficiency with using and reading results from the SPSS program. It is your responsibility to take the time to read the manual and practice using the program with the provided data set. Andris will be available to schedule appointments for assistance for those who need it.

NOTE: Very little class time will be allotted for instruction in SPSS usage. This course is primarily to grasp fundamentals of statistical analysis, and secondarily to apply that knowledge to a user-friendly program like SPSS. However, there are many statistical analysis programs with different operating procedures. These include Stata, SAS, Systat, S-Plus, GenStat, Minitab, Unistat, and NCSS, just to name a few. Even Microsoft Excel has statistical functions. Furthermore, programs are constantly being revamped and updated (We are using the manual for SPSS 14.0, UIC labs have SPSS 15.0, and SPSS 16.0 is already on the market).

Quizzes: Every Friday a quiz will be given on that week's topic.

Tentative Course Schedule

Week of:

January 14 – Introduction to Statistics and Application

January 24 – (No class on Monday the 21st) Data Description and Organization

January 28 – Central Tendency

February 4 – Variability

February 11 – Probability and Z-scores

February 18 – Samples and the t-distribution

February 25 – Significance testing

March 3 – **Review and Mid-term Examination**

March 10 – Analysis of Variance

March 17 – Chi-Squared

March 24 – **Spring Break**

March 31 – Correlation for quantitative measurements

April 7 – Correlation for ordinal measurements

April 14 – OLS Regression

April 21 – Multiple Regression, Logistic Regression

April 28 – For whatever we may need this week (catch up, review, or advanced lesson)

May 7 – **Final Examination: 8 am – 10 am**

Grading:

Weekly Quiz Average	40%
SPSS Assignments Average	10%
Mid-Term Exam	20%
Final Exam	30%

Total Average Scores

100% – 90% = A

< 90 – 80% = B

< 80 – 70% = C

< 70 – 60% = D

< 60% = F

Late Work and Absences

- Late work is not accepted. Only punctually submitted work will be given credit.
- Absences occurring on the dates on which quizzes and exams are given will result in a score of “0” for that particular quiz or exam.
- Alternative arrangements for quizzes and exams can be made in advance for unavoidable absences.
- Make up exams and quizzes will only be given upon presentation of official documentation explaining the absence. Emailed or verbally delivered excuses are not grounds for a make up quiz or exam.