Professor:
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PURPOSE

This course introduces students to data analysis, statistical inference, and research design relevant to political science research. Topics include variable measurement, descriptive statistics, confidence intervals, hypothesis tests, correlation, and regression analysis.

PREREQUISITES

Working knowledge of high school algebra is the only course prerequisite. Note that this course fulfills the Political Science department's techniques of analysis requirement.

COURSE REQUIREMENTS

Evaluation is based on problem sets (25% of your grade) and three midterm exams (25% of your grade each). The exams are given as scheduled and are not given early — make any travel plans accordingly. You must take all three exams to pass the course.

The lowest homework grade will be dropped when calculating the final course grade to allow for illness or other such unforeseen events. That said, you are strongly encouraged to complete ALL homework assignments. Students must deliver their homework in hardcopy to the TA. Late assignments will be penalized one half-grade (e.g., B to B-) for each day they are late. Homeworks more than seven days late will receive a grade of zero. Finally, while you are encouraged to study together and to learn the software together, all assignments are to be completed individually.

A web page for this course is to be found here:

`http://www.rochester.edu/College/PSC/clarke/200/200.html`

ACADEMIC INTEGRITY

Be familiar with the University's policies on academic integrity and disciplinary action (`http://www.rochester.edu/College/CCAS/AdviserHandbook/AcadHonesty.html`). Violators of University regulations on academic integrity will be dealt with severely, which means that your grade will suffer, and I will forward your case to the Chair of the College Board on Academic Honesty.

Remember that the same technology that has made plagiarism easier to accomplish has also made it easier to detect. If you do not cite a source, it is plagiarism. If you do cite it, it is scholarship.

TEXT

Agresti, Alan and Barbara Finlay (2009). *Statistical Methods for the Social Sciences*, 4th ed. Pearson.

COMPUTING

Students will learn the R program for statistical analysis. A computing lab will be held on Fridays during class period in either Goergen 102 or Meliora 210.

COURSE SCHEDULE

January 14: Introduction

- None (first day of class)

January 19: Martin Luther King, Jr. Day

- None (first day of class)

January 21-28: Probability, Sampling, and Measurement

- Agresti & Finlay, chapter 2

February 2-4: Descriptive Statistics

- Agresti & Finlay, chapter 3

February 9-11: Probability Distributions

- Agresti & Finlay, chapter 4

February 16: Exam 1 — no exceptions

- None

February 18-25: Estimation

- Agresti & Finlay, chapter 5

March 2-4: Significance Tests

- Agresti & Finlay, chapter 6

March 9-11: Spring Break

- None

March 16-18: Comparison of Two Groups

- Agresti & Finlay, chapter 7

March 23: Exam 2 — no exceptions.

- None

March 25-April 1: χ^2-Tests

- Agresti & Finlay, chapter 8

April 6-8: Regression and Correlation

- Agresti & Finlay, chapter 9

April 13-15: Multivariate Relationships

- Agresti & Finlay, chapter 10

April 20-22: Multiple Regression

- Agresti & Finlay, chapter 11

April 27: Review

- None

April 29: Exam 3 — no exceptions.

- None