

POL481, Section 03
Problems in Political Science (Statistics for Political Science)
Fall 2007: TUTH 8:00 - 9:20 AM, AB1 307/CJC111A

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Office: AB1 315M
Office Hours: TUTR 9:30 – 11:00 AM, 2:00-3:30PM
and by appointment

Course Description: Introduction to the use of standard computer programs (especially SPSS) for the analysis and interpretation of political and social data. Covers analysis of nominal and ordinal data, descriptive and inferential statistics, hypothesis testing, correlation, linear and multiple regression. There will be a critical review of the applications of these techniques to the analysis of political science and public policy research questions. These topics will be explored through a combination of lecture, individual take-home assignments, and exams. Credit Hours: 3. Prerequisites: 6 hours of Political Science.

Course Objectives: Specific course objectives include:

- Students will gain factual knowledge and information regarding quantitative statistical methods
- Students will learn fundamental principles and theories in the area of statistical methods
- Students will increase analytical, critical thinking, and communication skills

Textbooks & Required Materials:

Caldwell, Sally. 2004. *Statistics Unplugged 2nd Edition*. Belmont, CA: Wadsworth-Thomson Learning.

Carver, Robert H. and Jane Gradwohl Nash. 2005. *Doing Data Analysis with SPSS Version 14.0*. Belmont, CA: Brooks/Cole Thomson Learning.

Pyrzczak, Fred. 2004. *Success at Statistics: A Worktext with Humor*. 3rd ed. Glendale, CA: Pyrczak Publishing.

Additional readings handed out in class, posted on the course Blackboard website, or placed on reserve in Newton Gresham Library.

Exams and Grading: Your grade in this course will be determined by your performance on 10 problem sets, in-class exercises, a final project, and a comprehensive final exam (anyone asking me to calculate their grade for them will be penalized 10 points on their overall course grade):

Problem Sets (10@6% each)	60%
In-Class Exercises	10%
Final Project	10%
Final Exam	20%

The *problem sets* will apply concepts discussed in the lectures and the in-class exercises, and will often involve data analysis using SPSS. All problem sets are due at the start of class the day we cover them. Anyone turning in their problem set by 3:00 PM the day before we cover the material in class will be awarded 5 bonus points on the problem set (i.e., if we cover a problem set in class on Tuesday, turned in before 3:00 PM the preceding Monday; problem sets covered in class on Thursday turned in by 3:00 PM Wednesday). Problem sets turned in after the start of the class in which we cover the problem set will not be accepted. You will receive a grade of zero ('0') for each of the uncompleted problem sets.

The *final project* will involve you gathering, coding, and analyzing survey data. More detailed instructions on this project are posted on the Blackboard course website and will be handed out as the semester progresses.

The *final exam* is cumulative and will involve critical assessment of a research design and interpretation of statistical output.

Course grades will be calculated according to the following scale: A=90.0-100.0; B=80.0-89.9999; C=70.0-79.9999; D=60.0-69.9999; F=less than 60. Please note there is no rounding on overall course grades.

Instructor Evaluations: Students will be given the opportunity to complete a course/instructor evaluation form near the end of the semester.

Attendance Policy: Regular and punctual class attendance is expected of each student at Sam Houston State University. Because class attendance and course grade are demonstrably and positively related, I expect students to attend all class sessions of this course. Regular attendance is important because we will cover information in class that is not found in the texts. Attendance will be taken in every class meeting. If you are absent for any reason, it is your responsibility to become informed on what was covered in class. Please get class notes from a fellow student. It is not my policy to give out my lecture notes.

Academic Dishonesty: All students are expected to engage in all academic pursuits in a manner that is above reproach. Students are expected to maintain honesty and integrity in the academic experiences both in and out of the classroom. Any student found guilty of dishonesty in any phase of academic work will be subject to disciplinary action. The University and its official representatives may initiate disciplinary proceedings against a student accused of any form of academic dishonesty including but not limited to, cheating on an examination or other academic work which is to be submitted, plagiarism, collusion and the abuse of resource materials. For a complete listing of the university policy, see: <http://www.shsu.edu/administrative/faculty/sectionb.html#dishonesty>.

Americans with Disabilities Act: SHSU adheres to all applicable federal, state, and local laws, regulations, and guidelines with respect to providing reasonable accommodations for students with disabilities. If you have a disability that may affect adversely your work in this class, then I encourage you to register with the SHSU Counseling Center and to talk with me about how I can best help you. All disclosures of disabilities will be kept strictly confidential. *NOTE:* No accommodation can be made until you register with the Counseling Center . For a complete listing of the university policy, see: http://www.shsu.edu/~vaf_www/aps/811006.pdf.

Religious Holidays: Section 51.911(b) of the Texas Education Code requires that an institution of higher education excuse a student from attending classes or other required activities, including examinations, for the observance of a religious holy day, including travel for that purpose. A student whose absence is excused under this subsection may not be penalized for that absence and shall be allowed to take an examination or complete an assignment from which the student is excused within a reasonable time after the absence. “Religious holy day” means a holy day observed by a religion whose places of worship are exempt from property taxation under Section 11.20, Tax Code. For a complete listing of the university policy, see: http://www.shsu.edu/~vaf_www/aps/documents/861001.pdf.

Classroom Rules of Conduct: Students are expected to abide by the Classroom Rules of Conduct as outlined by the Dean of Students: <http://www.shsu.edu/students/guide/dean/codeofconduct.html>.

CLASS SCHEDULE & READING ASSIGNMENTS

Note: This schedule and the reading assignments are tentative. Changes will be announced in class.

I. RESEARCH DESIGN

August 23 (Thursday): Introduction to the Research Process

Caldwell, Chapter 1 (pp. 8-15); Pyrczak, Section 1

Fair, Ray C. Chapters 1 & 2, pp. 5-42 (available on Blackboard)

August 28 (Tuesday): Introduction to the Research Process & Measurement

Almer, Ennis C., "Liquor Outlets Cause Crime?" (available on Blackboard)

Meier and Brudney, Chapter 3 (available on Blackboard)

Carlson, James M. and Mark S. Hyde, "Conceptualizing, Operationalizing, and Measuring Variables" (available on Blackboard)

August 30 (Thursday): Introduction to Measurement

Caldwell, Chapter 1 (pp. 4-8); Pyrczak, Section 2

Herr, J. Paul. 2002. "The Impact of Campaign Appearances in the 1996 Election." *Journal of Politics* 64(3): 904-913. (available on Blackboard)

September 4 (Tuesday): Introduction to SPSS

Carver & Nash, Session 1

PROBLEM SET #1 DUE AT BEGINNING OF CLASS

II. DESCRIBING DATA

September 6 (Thursday): Counting Responses and Displaying Distributions, Part I

Caldwell, Chapter 3; Pyrczak, Sections 3-7, 9

September 11 (Tuesday): Frequency Distributions in SPSS

Carver & Nash, Sessions 2-3

September 13 (Thursday): Measures of Central Tendency and Dispersion

Caldwell, Chapter 2; Pyrczak, Sections 10-15

PROBLEM SET #2 DUE AT BEGINNING OF CLASS

September 18 (Tuesday): Central Tendency & Dispersion in SPSS

Carver & Nash, Session 4

III. TESTING HYPOTHESES

September 20 (Thursday): Probability

Pyrczak, Section 29

Meier and Brudney, Chapter 7 (pp. 107-111 and 115-120, available on Blackboard)

PROBLEM SET #3 DUE AT BEGINNING OF CLASS

September 25 (Tuesday): Probability and the Normal Distribution

Caldwell, Chapter 4; Pyrczak, Sections 30

FINAL PROJECT: CONCEPTS & MEASURES DUE AT BEGINNING OF CLASS

September 27 (Thursday): Z-Scores and Probability

Pyrczak, Sections 16, 18, 30

October 2 (Tuesday): Sampling and Inference

Caldwell, Chapters 5; Pyrczak, Sections 15, 27-28

PROBLEM SET #4 DUE AT BEGINNING OF CLASS

October 4 (Thursday): Confidence Intervals

Caldwell, Chapters 6; Pyrczak, Sections 31-32, 56-58

FINAL PROJECT: BEGIN DATA COLLECTION

October 9 (Tuesday): Hypothesis Testing

Caldwell, Chapters 7; Pyrczak, Sections 33-35; Carver & Nash, Session 11

******OCTOBER 10 (WEDNESDAY): NO PENALTY DROP DEADLINE******

October 11 (Thursday): Hypothesis Testing with One Sample

Caldwell, Chapters 9; Pyrczak, Sections 36, 59

October 16 (Tuesday): Comparing Two Samples

Caldwell, Chapter 8; Pyrczak, Sections 37-40

PROBLEM SET #5 DUE AT BEGINNING OF CLASS

October 18 (Thursday): Comparing Two Samples using SPSS

Carver & Nash, Session 12

IV. EXAMINING RELATIONSHIPS

October 23 (Tuesday): Crosstabs & the Chi-Square Statistic

Caldwell, Chapter 11; Pyrczak, Sections 48-50

PROBLEM SET #6 DUE AT BEGINNING OF CLASS

October 25 (Thursday): Crosstabs & Chi-Square in SPSS

Carver & Nash, Session 20

FINAL PROJECT: DATA COLLECTION DUE

October 30 (Tuesday): Crosstabs – Additional Measures of Association

Pyrczak, Section 51

PROBLEM SET #7 DUE AT BEGINNING OF CLASS

November 1 (Thursday): Crosstabs & Measures of Association in SPSS

No Readings

November 6 (Tuesday): Scatterplots & Correlation

Caldwell, Chapter 12 (pp. 262-281); Pyrczak, Sections 19-22

PROBLEM SET #8 DUE AT BEGINNING OF CLASS

November 8 (Thursday): Bivariate Regression

Caldwell, Chapter 12 (pp. 281-294); Pyrczak, Section 25

November 13 (Tuesday): Bivariate Regression in SPSS

Carver & Nash, Session 15

November 15 (Thursday): NO CLASS MEETING – TURN IN PROBLEM SET BY E-MAIL

PROBLEM SET #9 DUE AT BEGINNING OF CLASS

November 20 (Tuesday): Multivariate Regression

Caldwell, Chapter 12 (pp. 281-294)

November 22 (Thursday): NO CLASS – THANKSGIVING BREAK

November 27 (Tuesday): Multivariate Regression

Caldwell, Chapter 12 (pp. 281-294)

November 29 (Thursday): Multivariate Regression in SPSS

Carver & Nash, Session 17

V. PUTTING IT ALL TOGETHER

December 4 (Tuesday): Conferences on Final Projects

PROBLEM SET #10 DUE AT BEGINNING OF CLASS

December 6 (Thursday): Cumulative Final Exam Preparation

FINAL PROJECT: WRITTEN REPORT DUE AT BEGINNING OF CLASS

**Week of December 8-13:
FINAL EXAM AT DAY & TIME SCHEDULED BY UNIVERSITY
(<http://www.shsu.edu/students/finalexam.html>)**
