

Quantitative Methods I

UrbP 204 A

Fall 2007

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Time: Monday 4:00 pm - 6:45 pm
Room: WSQ 208
Office Hours: Tuesday: 1 pm – 3:30 pm
Wednesday: 4:30 pm – 7 pm

Syllabus

Course Catalog Description

Urban research design, measurement, selected statistical research tools and introduction to computer processing. Extensive treatment of survey research.

Overview

What does “quantitative research” mean? How do I choose an appropriate method for my research? Why is survey a research tool? How do I conduct surveys? What kind of information may be obtained using U.S. Census data? What is “standard deviation”? What does the term “statistical significance” mean? These are some of the questions that interest many of us in the field of urban and regional planning. This course aims to answer these and other similar questions.

The course begins with an overview of social research, and of several research methods frequently used in social science research. Next, it focuses on learning statistical tools needed to answer specific research question. Thereafter it focuses on survey research, including survey administration. It then reviews the elements of research design and in the end requires the students to conduct statistical analysis of the data obtained through the survey, and to present the research findings.

Student Learning Objectives for the Course

After completing this course, the students will be able to:

- a) conduct a comparative evaluation of quantitative, qualitative, experimental, and survey research;
- b) understand the role of research methods in the overall research design;
- c) conduct descriptive and inferential statistical analysis;
- d) frame survey research questions; and
- e) generate research questions, and use statistical tools learned in the class to answer the questions

Class format

This class will be a combination of lectures, discussions, and lab work. MS Excel and SPSS will be the primary statistical software used.

Grading

Grades will be based on three take home exercises (10% each for a total of 30%), mid-term exam (20%), term project (40%), and presentation of the term project (10%). Late work will not be accepted, except with the prior permission of the professor. Additionally, participation in the October 27 field survey, and submission of a memo describing the survey experience is mandatory to pass this course.

Course grade and corresponding numerical grade:

A+ (96 and above); A (93 to 95); A- (90 to 92); B+ (87 to 89); B (84 to 86); B- (81 to 83); C+ (78 to 80); C (75 to 77); C- (72 to 74); D+ (69 to 71); D (66 to 68); D- (63 to 65); E+ (60 to 62); E (57 to 59); E- (54 to 56); F (below 53)

Required Text Books

There are two required text books for this course. They are:

a) Babbie, Earl. 2004. Practice of Social Research, 10th ed. Belmont, CA: Wadsworth.

You may use the 9th edition of the book if you find the price of the 10th edition to be very high.

b) Salkind, Neil. 2004. Statistics for People Who (Think They) Hate Statistics, 2nd Edition. Thousand Oaks, CA: Sage.

Both these books may be bought from any vendor. Some on-line vendors include:

<http://www.powells.com>

<http://www.amazon.com>

<http://www.bordersstores.com>

Policy on Plagiarism

Plagiarism is the use of someone else's language, images, data, or ideas without proper attribution. It is a very serious offense both in the university and in your professional work. In essence, plagiarism is both theft and lying: you have stolen someone else's ideas, and then lied by implying that they are your own.

Plagiarism will lead to grade penalties and a record filed with the department chair. It may also result in your failing the course and/or having the incident permanently noted in your SJSU student records.

If you are unsure what constitutes plagiarism, it is your responsibility to make sure you clarify the issues *before* you hand in written work.

Learning when to cite a source and when not to is an art, not a science. However, here are some examples of plagiarism that you should be careful to avoid:

- If you use a sentence (or even a part of a sentence) that someone else wrote and do not put it in double quotes and reference the source, you have committed plagiarism.
- If you paraphrase somebody else's theory or idea and don't reference the source, you have committed plagiarism.
- If you use a picture or table from a web page or book and don't reference the source, you have committed plagiarism.
- If your paper incorporates data someone else has collected and you don't reference the source, you have committed plagiarism.

The University of Indiana has developed a very helpful website with concrete examples about proper paraphrasing and quotation. See in particular:

- <http://www.indiana.edu/~wts/pamphlets/plagiarism.shtml>
- <http://www.indiana.edu/~istd/examples.html>
- <http://education.indiana.edu/~frick/plagiarism/item1.html>

At the last page listed you will find a quiz to test how well you understand proper paraphrasing.

If you still have questions after reading these pages, feel free to talk to the instructor personally. There is nothing wrong with asking for help, whereas even unintentional plagiarism is a serious offense.

If you have questions about the official SJSU policy on plagiarism, please read the “Policy on Academic Dishonesty” at <http://www2.sjsu.edu/senate/S04-12.htm>. In addition, the “Academic Dishonesty Procedures” are available in any SJSU *Schedule of Classes*.

Academic integrity statement (from the Office of Student Conduct and Ethical Development):
"Your own commitment to learning, as evidenced by your enrollment at San Jose State University, and the University's Academic Integrity Policy requires you to be honest in all your academic course work. Faculty members are required to report all infractions to the Office of Student Conduct and Ethical Development. The policy on academic integrity can be found at http://sa.sjsu.edu/student_conduct.

Recommended Citation Style

When you cite another author's work in any written assignments, use “Turabian” style:

- For print sources, follow the directions in Kate Turabian's *A Manual for Writers of Term Papers, Theses, and Dissertations* (University of Chicago Press, 1996). Copies are available in the SJSU King library and in the main office of the Department of Urban and Regional Planning (WSH 216). Additionally, the book is relatively inexpensive, and you may wish to purchase a copy (there are often cheap, used copies available through on-line book sellers).
- For electronic sources, follow the directions at Maurice Crouse's page “Citing Electronic Information in History Papers” available at <http://cas.memphis.edu/~mcrouse/elcite.html>. The page begins with a discussion of the theory behind good citation style, and then provides detailed examples of how to cite all sorts of sources. Be sure to follow the guidelines for Turabian-style citations.

Please note that Turabian's book describes two main systems for referencing materials: (1) footnotes or endnotes, plus a corresponding bibliography, or (2) in-text parenthetical references, plus a corresponding reference list. You can use any system. However make sure that once you have decided to use one system, it is diligently adopted throughout your written work.

Disability Accommodation

Campus policy in compliance with the Americans with Disabilities Act:

"If you need course adaptations or accommodations because of a disability, or if you need special arrangements in case the building must be evacuated, please make an appointment with me as soon as possible, or see me during office hours. Presidential Directive 97-03 requires that students with disabilities requesting accommodations must register with DRC to establish a record of their disability."

Class Schedule

1. August 27

Course Overview

2. September 3

Labor Day- No Class

3. September 10

Social Research

Required reading:

Earl, Babbie. Ch. 1, 2, 3 and 5

4. September 17

Statistical Analysis- I

Descriptive Statistics

Required reading:

Salkind, Neil. Ch. 2 and 3

1st Take Home Exercise Set

5. September 24

Statistical Analysis- II

Normal Distribution; Hypothesis Testing; T-statistics

Required reading:

Salkind, Neil. Ch. 6, 7 and 8

6. October 1

Statistical Analysis- III

Tests between Means of Different Groups; Tests Between Means of Related Groups; ANOVA

Required reading:

Salkind, Neil. Ch. 9, 10 and 11

1st Take Home Exercise Set Due

7. October 8

Statistical Analysis- IV

Factorial ANOVA; Correlation; Chi-squared tests

Required reading:

Salkind, Neil. Ch. 12, 13 and 15

2nd Take Home Exercise Set

8. October 15

Survey Research – I

Required reading:

Earl, Babbie. Ch. 7 to 10

Introduction of Term Project

9. October 22

Survey Research- II; Review of Survey Questionnaire; Review of Survey Data File
2nd Take Home Exercise Set Due
Neighborhood Profile Memo Due
3rd Take Home Exercise Set

October 27 – date for field survey

10. October 29

Research Design; Overview of U.S. Census data; Lab Time for Term Project (Framing Research Questions)
Required reading:
Earl, Babbie. Ch. 4 and 6
Mid-Term Exam (take home)
Completed Surveys Due (paper copy of the completed surveys and the electronic data file)
Survey Experience Memo Due

11. November 5

Lab Time for Term Project (Analyzing the data)
3rd Take Home Exercise Set Due

12. November 12

Veteran’s Day – No Class

13. November 19

Computer Graphics; IRB
Term Project Analysis Report Due

14. November 26

Lab Time for Term Project
Mid-Term Exam due

15. December 3

In-Class Presentation of Term Project

16. December 10

In-Class Presentation of Term Project

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