URBP 204A: QUANTITATIVE METHODS I
FALL 2010

Instructor: Dr. Shishir Mathur
Office location: WSQ 216E
Telephone: 408-924-5875
Email: shishir.mathur@sjsu.edu
Office hours: Monday 11 am to 12 noon and 1:30 pm to 3:30 pm
Thursday 1:30 pm to 3 pm
Class days/time: Thursday 4 pm to 6:45 pm
Classroom: WSQ 208

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

Course Description and Objectives:
What does “quantitative research” mean? How do I choose an appropriate research method? 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 “statistically 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 questions. Thereafter it provides an overview of survey research. It then reviews the elements of research design. In the end it requires the students to conduct statistical analysis of survey data, and to present the research findings to the class.

Student Learning Objectives for the Course
Upon successful completion of the course, the students will be able to:
   a) identify the overall strengths and weaknesses of quantitative, qualitative, experimental, and survey research methods; and assess which research method/s, given the resource constraints, are most appropriate for answering the research question;
   b) develop research question worthy of informing public policy, and identify the statistical tool (the tools learned in this class are: Tests between Means of Different Groups, Tests Between Means of Related Groups, ANOVA, Factorial ANOVA, Correlation, and One- and Two-Factor Chi Square) appropriate for answering the research question;
   c) develop survey research questions that conform to conventional best practices in survey design;
Required Course Readings:

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

You may use the 9th edition (ISBN 0-534-57491-2) of the book if you find the price of the 10th edition to be very high.

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

Course Assignments and Grading Policy:

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

Grades will be based on three take home exercises (5% each for the first and the third take home exercise, and 20% for the second take home exercise), mid-term exam (20%), term project (40%), and the presentation of the term project (10%). Late work will not be accepted, except with the prior permission of the professor.

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); and F (below 63)

Academic integrity statement, plagiarism, and citing sources properly

SJSU's Policy on Academic Integrity states: "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" (Academic Senate Policy S07-2). The policy on academic integrity can be found at http://www.sjsu.edu/senate/S07-2.htm.
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 Office of Student Conduct and Ethical Development. In severe cases, students may also fail the course or even be expelled from the university.

If you are unsure what constitutes plagiarism, it is your responsibility to make sure you clarify the issues before you hand in draft or final 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 part of a sentence) that someone else wrote and don't 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 webpage or book and don't reference the source, you have committed plagiarism.
- If your work 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 the following pages:

- Overview of plagiarism at http://www.indiana.edu/~istd/overview.html
- Examples of plagiarism at http://www.indiana.edu/~istd/examples.html
- Plagiarism quiz at http://www.indiana.edu/~istd/test.html

If you still have questions, feel free to talk to me personally. There is nothing wrong with asking for help, whereas even unintentional plagiarism is a serious offense.

**Citation style**

It is important to properly cite any references you use in your assignments. The Department of Urban and Regional Planning uses Kate Turabian's "A Manual for Writers of Research Papers, Theses, and Dissertations, 7th edition" (University of Chicago Press, 2007, ISBN-10: 0-226-82336-9). Copies are available in the SJSU King Library. Additionally, the book is relatively inexpensive, and you may wish to purchase a copy. Please note that Turabian's book describes two systems for referencing materials: (1) “notes” (footnotes or endnotes), plus a corresponding bibliography, and (2) in-text parenthetical references, plus a corresponding reference list.

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.
Accommodation for Disabilities

If you need course adaptations or accommodations because of a disability, or if you need to make 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 the DRC (Disability Resource Center) to establish a record of their disability.

Tentative Course Schedule

Please note: In the Course Schedule below, the chapter numbers for the Earl Babbie book are as per the 10th Edition. The Chapters titles for the 10th Edition are provided at the end of the syllabus. If you buy the 9th Edition, look for the corresponding chapter titles. Chapter numbers for the Salkind book are as per the 2nd Edition.

<table>
<thead>
<tr>
<th>Date</th>
<th>Topic</th>
<th>Required Reading</th>
<th>Notes</th>
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<tbody>
<tr>
<td>1. August 26</td>
<td>Course Overview</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. September 2</td>
<td>Social Research</td>
<td>Earl, Babbie. Ch. 1, 2, 3 and 5</td>
<td></td>
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<tr>
<td>3. September 9</td>
<td>Statistical Analysis - I</td>
<td>Salkind, Neil. Ch. 2 and 3</td>
<td>1st Take Home Exercise Set</td>
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<tr>
<td>4. September 16</td>
<td>Statistical Analysis - II; Overview of Census Data</td>
<td>Salkind, Neil. Ch. 6, 7 and 8</td>
<td></td>
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<td>5. September 23</td>
<td>Statistical Analysis - III</td>
<td>Salkind, Neil. Ch. 9, 10 and 11</td>
<td>1st Take Home Exercise Set Due</td>
</tr>
<tr>
<td>6. September 30</td>
<td>Statistical Analysis - IV</td>
<td>Salkind, Neil. Ch. 12, 13 and 15</td>
<td>2nd Take Home Exercise Set</td>
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Termp Project Introduced (Review of Survey Questionnaire; Review of Survey Data File)  
1st Take Home Exercise Set Graded
7. October 7
Statistical Analysis – V; Survey Research – I
Required reading:
Earl, Babbie. Ch. 7 to 10
Neighborhood Profile Memo Due
Revised 1st Take Home Exercise Set Due

8. October 14
Survey Research – II
Research Questions Due
Revised 1st Take Home Exercise Set Graded

9. October 21
Research Design – I; Lab Time for Term Project
Required reading:
Earl, Babbie. Ch. 4 and 6
2nd Take Home Exercise Set Due
Research Questions Graded
Mid-Term Exam (take home)
3rd Take Home Exercise Set

10. October 28
Research Design – II; Computer Graphics
2nd Take Home Exercise Graded
Revised Research Questions Due

11. November 4
Lab Time for Term Project
Revised Research Questions Graded
Revised 2nd Take Home Exercise Set Due
3rd Take Home Exercise Set Due

November 10: Term Project Analysis Report Due by 11 pm

13. November 11
Veterans Day – No Class

14. November 18
IRB; How to read research using multiple regression method; Lab Time for Term Project
Revised 2nd Take Home Exercise Graded
3rd Take Home Exercise Graded
Term Project Analysis Report Graded
Mid-Term Exam Due

15. November 24
Thanksgiving- No Class
16. December 2
In-Class Presentation of Term Project
Revised Term Project Analysis Report Due

17. December 9
In-Class Presentation of Term Project
Revised Term Project Analysis Report Graded
Mid-Term Exam Graded
Revised 3rd Take Home Exercise Set Graded
APPENDIX:

Chapter Titles: Babbie 10th edition

Ch. 1
Human Inquiry and Science

Ch 2
Paradigms, Theory and Social Research

Ch 3
The Ethics and Politics of Social Research

Ch 4
Research Design

Ch 5
Conceptualization, Operationalization, and Measurement

Ch 6
Indexes, Scales, and Typologies

Ch 7
The Logic of Sampling

Ch 8
Experiments

Ch 9
Survey Research

Ch 10
Qualitative Field Research

Ch 11
Unobtrusive Research

Ch 12
Evaluation Research

Ch 13
Qualitative Data Analysis

Ch 14
Quantitative Data Analysis

Ch 15
The Elaboration Model

Ch 16
Social Statistics

Ch 17
Reading and Writing Social Research