The University of Texas at Austin
School of Social Work

Data Analysis and Computers II

Course Number: SW 388R7
Unique Number: 63605
Semester: Spring 2013
Time: Wednesday: 8:30am to 11:30am
Room: SSW 1.214

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BlackBoard Web Site: https://courses.utexas.edu/webapps/blackboard/execute/courseMain?course_id=_366723_1

I. Course Description

This course is designed to build upon the concepts and procedures introduced in Data Analysis and Computers I, to enable students to do a more thorough job of data analysis by introducing multivariate statistical procedures into their repertoire of statistical techniques. The primary focus is on using the SPSS statistical package for calculating multivariate statistics, and the utilization of the statistical output in research findings.

II. Course Objectives

1. To understand how the analysis of data derives from the statement of a research problem or hypothesis and the availability of empirical data.
2. To understand how to conduct a variety of statistical analyses, including testing of statistical assumptions, data transformations, and validation of statistical findings.
3. To understand how to present and interpret the results of statistical analyses.
4. To be able to design a data analysis strategy that answers a research question or hypothesis, including specifications for data elements, requirements of the statistic, and limitations to the interpretation.

III. Teaching Methods

Course content will be covered using class lecture, focused discussions, computer demonstrations, and regular homework assignments involving data analysis exercises and computer applications. Students are expected to ask questions, share experiences, and actively participate in class discussions. While most statistical calculation will be done on the computer, some hand calculation is inherent in statistical analysis. Pocket calculators or Microsoft Excel can be used for to compute these calculations.

Course materials, assignments, the syllabus and schedule, and announcements will be available on the BlackBoard web site for the course.

To request help, send me an email. Usually you may anticipate a response within 24 hour. My email address is listed at the top of this syllabus. If I think your question is of general interest to

the class, I may post it as an announcement unless you explicitly request that I do not post it. If you need to meet with me individually, the best method for setting an appointment is via email.

IV. Required and Recommended Texts, and Materials

The required texts for the course are:

Keith, Timothy Z. *Multiple Regresion and Beyond*. Boston, Mass. : Pearson Education, 2006. ISBN: 9780205326440.

Orme, John G and Combs-Orme, Terri. *Multiple Regression with Discrete Dependent Variables*. Oxford : Oxford University Press, USA, 2009. ISBN: 978019532945.

In addition, you will need access to a recent version of SPSS and access to the Internet using either Internet Explorer, Firefox, or a comparable web browser. If you do not have a personal computer, the necessary hardware and software are available in the LRC computer lab in the School of Social Work.

All data sets used in this course will be available as SPSS system data files (".SAV") for downloading via the course web page in BlackBoard.

V. Course Requirements

Course requirements will consist of weekly homework assignments, participation in class, and two papers. In addition, regular class attendance is expected and students should come to class prepared to actively participate in the class. Course requirements, due dates, and their contribution to the final grade are summarized below.

Homework	25%
Midterm Paper	25%
Final Paper	25%
Class Presentations/Participation	25%

Final grades for this course will be assigned using the following +/- scale.

94. 0 and Above	A	74.0 to 76.999	C
90.0 to 93.999	A-	70.0 to 73.999	C-
87.0 to 89.999	B+	67.0 to 69.999	D+
84.0 to 86.999	B	64.0 to 66.999	D
80.0 to 83.999	B-	60.0 to 63.999	D-
77.0 to 79.999	C+	Below 60.0	F

Weekly Homework Assignments

Homework assignments requiring students to use SPSS to analyze data will be made available on the BlackBoard site after every class. Homework problems will be multiple answer questions on each weekly topic. The questions are randomly drawn from a test bank of problems. Each problem requires that all correct answers be marked in order to receive credit for the problem. Homework assignments may be repeated as often as desired, and you will be given a different selection of questions each time you redo the assignment. The grade for each assignment will be the highest grade for any attempt on that set of questions.

Mid-term and Final Papers

There will be two papers in this class, due at approximately mid-term and the last class day. Each paper will include:

- a real or hypothetical literature review that establishes the foundation for the research questions,
- one or more explicit research questions,
- data analysis that responds to the research questions, and
- an interpretation and discussion of the results.

SPSS syntax and output should be appended to the written paper. This assignment may be combined with assignments for other classes, provided the unique parts for each class are identified.

Additional specifications may be provided closer to the due date for the papers.

Class Presentations

Students will be expected to present and lead a discussion on chapter problems in each class. Students can volunteer for specific problems or be assigned problems using a randomly order list developed for this class. The presentation should include the background for the research question, the rationale for the analysis method, the SPSS methods, and the findings and interpretation. An oral presentation is sufficient. Written materials and/or PowerPoint slides are optional.

VI. Class Policies

Class Attendance and Participation. Attendance and participation are important for effective learning. This means that students should not only attend class but should be prepared to actively participate in class discussions. At the same time, there may be occasions when students will not be able to attend class because of illness or other personal problems. In such cases, it would be appropriate for the student to notify the professor before class that they will not be attending. In the case of excessive absences, the professor reserves the right to deduct points from a student's final course grade.

Religious holy days sometimes conflict with class and examination schedules. If you miss an examination, work assignment, or other project due to the observance of a religious holy day you will be given an opportunity to complete the work missed within a reasonable time after the

absence. It is the policy of The University of Texas at Austin that you must notify each of your instructors at least fourteen days prior to the classes scheduled on dates you will be absent to observe a religious holy day.

Scholastic Dishonesty. The University of Texas at Austin is proud of its students' commitment to academic integrity and their pledge to abide by its policy on scholastic dishonesty. The tradition of academic integrity is maintained by the cooperation of students and faculty members. Official University policies on scholastic dishonesty are stated in the university General Information 2002-2003, Appendix C, Chapter 11, Institutional Rules on Student Services and Activities. These policies may also be found online by clicking on the following link: General Information 2005-2006. They may also be accessed from the Student Judicial Services web site. This site provides detailed information about the university's policies regarding academic integrity and standards of conduct. Students are encouraged to review this page and to become familiar with these policies.

If a student has any questions concerning the application of the rules prohibiting scholastic dishonesty in regard to a particular assignment, it is the responsibility of that student to seek clarification from the instructor of the course. Violations of the University's policy on scholastic dishonesty will result in a grade of F for the course and may result in reporting to the Dean of the School of Social Work and the Dean of the Graduate School.

Publication style manual. The Publication Manual of the American Psychological Association is the style manual adopted by the School of Social Work. All papers prepared for this class should conform to the APA style. A summary handout of this manual is available in Student Services. The complete manual is available in the Learning Resource Center. You can also find on-line assistance with electronic reference guidelines at: APAStyle.org.

Conditional admission. Students who were admitted into the MSSW program on a conditional basis are not able to take an incomplete for this course if the conditions for admission are still in place.

Safety. As part of professional social work education, students may have assignments that involve working in agency settings and/or the community. As such, these assignments may present some risks. Sound choices and caution may lower risks inherent to the profession. It is the student's responsibility to be aware of and adhere to policies and practices related to agency and/or community safety. Students should also notify instructors regarding any safety concerns.

Accommodations for students with disabilities. The University of Texas at Austin provides, upon request, appropriate academic accommodation for any student with a documented disability (physical or cognitive). For information about academic accommodations, students should contact the Office of the Dean of Students, Services for Students with Disabilities at 471-6259 (voice) or 471-4641 (TTY for users who are deaf or hard of hearing). Information is also available online at: http://deanofstudents.utexas.edu/ssd/. Students are asked to notify the professor of any accommodations they may need prior to the end of the second week of class.

VII. Schedule

The following schedule is the weekly sequence of topics for the semester. The instructor reserves the right to make adjustments to the topic sequence if deemed necessary. Any changes will be made prior to the date of the class.

Class/Date	Topic/Readings	Homework Problems
Class1: January 16	• 1. Introduction and Simple (Bivariate) Regression.	• Multiple Regression - One Independent Variable
Class 2: January 23	• 2. Multiple Regression: Introduction. • 3. Multiple Regression: More Detail. • 4. Three and More Independent Variables and Related Issues.	• Multiple Regression - Two Independent Variables • Multiple Regression - Three Independent Variables
Class 3: January 30	• 5. Three Types of Multiple Regression.	• Multiple Regression - Sequential Entry of Variables
Class 4: February 6	• 6. Analysis of Categorical Variables.	• Multiple Regression - Categorical Independent Variables • Multiple Regression - Dichotomized Independent Variables
Class 5: February 13	• 7. Categorical and Continuous Variables.	• Multiple Regression - Interaction of Categorical and Continuous Variables
Class 6: February 20	• 8. Continuous Variables: Interactions and Curves.	• Multiple Regression - Interaction of Continuous Variables
Class 7: February 27	• 8. Continuous Variables: Interactions and Curves.	• Multiple Regression - Curvilinear Effects
Class 8: March 6	• 9. Multiple Regression: Summary, Further Study, and Problems.	• Multiple Regression – Assumptions and Diagnostics
Class 9: March 20	• TBA	• Mid-term Paper Due
Class 10: March 27	• TBA	• TBA
Class 11: April 3	• TBA	• TBA
Class 12: April 10	• TBA	• TBA
Class 13: April 17	• TBA	• TBA
Class 14: April 24	• TBA	• TBA
Class 15: May 1	• TBA	• Final Paper Due