

The University of Texas at Austin
School of Social Work

Data Analysis and Computers II

Course Number: SW 388R7	Faculty: Jim Schwab
Unique Number: 64195	Office Number: SSW 2.228
Semester: Spring 2007	Office Phone: 471-9816
Time: Wednesday: 8:30am to 11:30am	Email: jimSchwab@mail.utexas.edu
Place: SSW 1.214	Office Hours: Wednesdays, 7:30 to 8:30am, Instructional Technology Classroom or by appointment
BlackBoard Course Site: 07SP 7-DATA ANALYSIS & COMPUTERS II (64195)	

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, announcements, assignments, and grading of homework problems will be done in BlackBoard. Through BlackBoard, the syllabus and any updates are available for downloading; datasets for problems are available for downloading; homework assignments and exams will be made available and completed online; your grades on exams and homework will be available online to you; a public bulletin board and access

to email is supported for reporting problems on assignments, requesting assistance, and checking for announcements.

While the University has invested additional resources in support of BlackBoard, there are still periodic outages and slow-downs. If you wait until the last minute to complete assignments, you may encounter difficulties.

Blackboard supports an email system and I can post announcements for all class members to see. If you identify errors or ambiguities in my materials, please inform me and I will post the clarification announcement. You may want to consult announcements before raising an issue to see if it has already been asked and answered.

In addition to posting requests on the bulletin board, you may request help via personal email, which I check several times during a typical workday and generally once on weekends. 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 text for the course is:

Ott, R. Lyman and Longnecker, Michael. *An Introduction to Statistical Methods and Data Analysis, Fifth Edition*. Pacific Grove, CA: Duxbury, 2001. ISBN: 0534251226. (continued from last semester).

Hutcheson, Graeme; and Sofroniou, Nick. *The multivariate social scientist : introductory statistics using generalized linear models*. Thousand Oaks, Calif.: Sage Publications, 1999. ISBN: 0761952012.

In addition, you will need access to version 14.0 of SPSS on a PC computer 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.

In addition to text materials, there will be links to online tutorials for each week's materials. You should review all of these links and repeat those which you find most helpful.

V. Course Requirements

Course requirements will consist of weekly homework assignments and two exams. 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	30%
Midterm Exam	35%
Final Exam	35%

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

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

Homework assignments requiring students to use SPSS to analyze data will be made available on the course web site after every class. Homework problems will be objective style questions on the datasets provided for the course. Each homework assignment draws from a large test bank from which a subset of problems are randomly selected. The homework assignment may be redone as many times as you wish until the exam on that content. You will be given a different selection of questions each time you redo the assignment. You will find two identical versions of each homework assignment. Your grade for the assignment will be the higher grade on either version of the assignment. Since BlackBoard will record your grade for the last attempt, you can use the other version to retake the assignment to improve your grade.

Grades for homework assignments will be the highest grade for each problem set at the time of the exam. While you may continue to do homework problems after the exam date, the grade for the assignment will not be updated.

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 in class. 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.

A detailed weekly worksheet of readings, web resources, and homework assignments will be added to the course web site prior to the start of each class.

Class	Date	Topic
1	January 24, 2007	One-Way ANOVA and Linear Regression as General Linear Models
2	January 31, 2007	Factorial Analysis of Variance
3	February 7, 2007	Analysis of Covariance
4	February 14, 2007	Repeated Measures ANOVA and Mixed Models
5	February 21, 2007	Standard Multiple Regression
6	February 28, 2007	Hierarchical Multiple Regression
7	March 7, 2007	Stepwise Multiple Regression and Validation Analysis
8	March 21, 2007	Mid-term Exam
9	March 28, 2007	Binary Logistic Regression
10	April 4, 2007	Hierarchical and Stepwise Binary Logistic Regression
11	April 11, 2007	Multinomial Logistic Regression
12	April 18, 2007	Log-linear Analysis
13	April 25, 2007	Factor Analysis
14	May 2, 2007	Power Analysis
	TBA	Final Exam