

**The University of Texas at Austin
School of Social Work**

Data Analysis and Computers I

Course Number: SW 388R6
Unique Number: 64350
Semester: Fall 2014
Time: Wednesday 2:30 to 5:30 PM

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I. Course Description

This course is designed to introduce students to fundamental concepts and statistical procedures used in social work research. It also introduces students to computer applications for data analysis and helps them develop basic skills in data file construction and manipulation, data definition, and statistical analysis. The primary focus of the course is on developing a conceptual and mathematical understanding of statistics needed for advanced work in research design, model development, model fitting and estimation, hypothesis testing, multivariate techniques, and interpretation of data.

II. Course Objectives

The stated mission of the doctoral program of the School of Social Work is "to prepare its graduates for successful academic careers as social work educators whose excellence as teachers and scholars will provide intellectual leadership for the profession." Pursuit of this mission will be the overall objective of this course. By the end of the semester students will:

1. Develop basic proficiency with computer data analysis including construction of data files, SPSS for data analysis, and development of an analysis plan;
2. Understand fundamental concepts of statistical analysis;
3. Develop basic skills necessary to organize, present, and interpret data;
4. Develop the ability to evaluate and interpret the results of statistical analysis;
5. Understand the relationship between research design and statistical methods.

II. Teaching Methods

Course content will be covered using class lecture, focused discussions, computer demonstration and practice and weekly homework assignments. Students are expected to ask questions, share experiences, and actively participate in class discussions.

IV. Recommended Texts and Materials

Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2010). *Multivariate data analysis*, Seventh Edition. Pearson.

Tabachnick, B. & Fidell, L. (2012). *Using multivariate statistics*, Sixth Edition. Harper Collins College Division.

Cohen, J., Cohen, P., West, S. G., & Aiken, L. S. (2003). *Applied multiple regression/correlation analysis for the behavioral sciences*, Third Edition. Lawrence Erlbaum.

Other reading materials will be posted on UT Canvas.

In addition, you will need access to SPSS. Your options include:

- Purchasing a copy of *SPSS Grad Pack* at the Campus Computer Store in the Flawn Academic Center: <http://www.utexas.edu/its/products/spss/purchase.php>
- Using SPSS in the Social Work Computer Lab in the Learning Resource Center
- Using Stat Apps Server: <http://ssc.utexas.edu/software/stat-apps-server>

V. Course Requirements

Course requirements will consist of 10 homework assignments, measurement introduction activity, and two exams. In addition, regular class attendance is expected and students should come to class prepared to actively participate in the class.

10 Homework assignments (4 points each)	40 points
Measurement introduction	5 points
Midterm exam	25 points
Final exam	30 points

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-

VI. Class Policies

The University of Texas Honor Code

The core values of The University of Texas at Austin are learning, discovery, freedom, leadership, individual opportunity, and responsibility. Each member of the university is expected to uphold these values through integrity, honesty, trust, fairness, and respect toward peers and community.

Policy on Scholastic Dishonesty

Students who violate University rules on scholastic dishonesty are subject to disciplinary penalties, including the possibility of failure in the course and/or dismissal from the University. Since such dishonesty harms the individual, all students, and the integrity of the University, policies on scholastic dishonesty will be strictly enforced. For further information, the student may refer to the Web Site of the Student Judicial Services, Office of the Dean of Students (<http://www.utexas.edu/depts/dos/sjs/>).

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.

Checking email, messaging, and surfing the web are not acceptable activities during class time. If it comes to my attention that you are engaged in these activities, you may be asked to remove yourself from the class.

Professional Conduct in Class

The professor expects students to act like professionals in class. This means students should arrive on time for class, be prepared to participate in the class discussion, and show respect for one another's opinions. We will not, nor should we, always agree with one another. In this environment we should be exposed to diverse ideas and opinions, and sometime we will not agree with the ideas expressed by others. However, the professor does require that students engage one another with respect and professionalism.

Religious Holidays

By UT Austin policy, students must notify the professor of a pending absence at least fourteen days prior to the date of observance of a religious holy day. If the student must miss a class, an examination, a work assignment, or a project in order to observe a religious holy day, the professor will give the student an opportunity to complete the missed work within a reasonable time after the absence.

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 PhD program on a conditional basis are not able to take an incomplete for this course if the conditions for admission are still in place.

Documented Disability Statement

Any student who requires special accommodations must obtain a letter that documents the disability from the Services for Students with Disabilities area of the Division of Diversity and Community Engagement (471-6259 voice or 471-4641 TTY for users who are deaf or hard of hearing). Present the letter to the professor at the beginning of the semester so that needed accommodations can be discussed. The student should remind the professor of any testing accommodations no later than five business days before an exam. For more information, visit <http://www.utexas.edu/diversity/ddce/ssd/>.

Use of E-Mail for Official Correspondence to Students

Email is recognized as an official mode of university correspondence; therefore, students are responsible for reading their email for university and course-related information and announcements. Students are responsible to keep the university informed about changes to their e-mail address. Students should check their e-mail regularly and frequently—daily, but at minimum twice a week—to stay current with university-related communications, some of which may be time-sensitive. Students can find UT Austin’s policies and instructions for updating their e-mail address at <http://www.utexas.edu/its/policies/emailnotify.php>.

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 notify the professor regarding any safety concerns.

Behavior Concerns Advice Line (BCAL)

If students are worried about someone who is acting differently, they may use the Behavior Concerns Advice Line to discuss by phone their concerns about another individual’s behavior. This service is provided through a partnership among the Office of the Dean of Students, the Counseling and Mental Health Center (CMHC), the Employee Assistance Program (EAP), and The University of Texas Police Department (UTPD). Call 512-232-5050 or visit <http://www.utexas.edu/safety/bcal>.

Emergency Evacuation Policy

Occupants of buildings on the UT Austin campus are required to evacuate and assemble outside when a fire alarm is activated or an announcement is made. Please be aware of the following policies regarding evacuation:

- Familiarize yourself with all exit doors of the classroom and the building. Remember that the nearest exit door may not be the one you used when you entered the building.
- If you require assistance to evacuate, inform the professor in writing during the first week of class.
- In the event of an evacuation, follow the professor's instructions.
- Do not re-enter a building unless you're given instructions by the Austin Fire Department, the UT Austin Police Department, or the Fire Prevention Services office.

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.

	Date	Topic	Homework Assignment	Measurement Introduction (TBA)	Reading Materials (TBA)
1	08/27	Introduction			
2	09/03	Basics in data management	Homework 1		
3	09/10	Descriptive statistics	Homework 2		
4	09/17	Inferential statistics 1	Homework 3		
5	09/24	Inferential statistics 2	Homework 4		
6	10/01	Bivariate correlation	Homework 5		
7	10/08	Midterm exam			
8	10/15	Factor analysis	Homework 6		
9	10/22	Multiple regression 1	Homework 7		
10	10/29	Multiple regression 2	Homework 8		
11	11/05	No class			
12	11/12	Multiple regression 3	Homework 9		
13	11/19	Multiple regression 4	Homework 10		
14	11/26	Review session			
15	12/03	Final exam			