The University of Texas at Austin
School of Social Work

SOCIAL WORK STATISTICS

Course Number: SW 318
Unique Number: 61620
Semester: Fall 2011
Meeting Time: Tues., Thurs. 3:30-5 pm
Meeting Place: SSW 1.214 (Information Technology Classroom)

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Office Hours: Tues. 5 - 5:30 pm, Thurs. 3 – 3:30, and by appt.

Course Description

This course is one of the two courses in research for undergraduate social work majors. Completion of the liberal arts math requirement is a prerequisite for this course. This course provides a basic introduction to the conceptual and quantitative tools used to describe and interpret data in the conduct of social work and social psychological practice and research. Students learn how to select, calculate, and interpret appropriate statistics applicable to common data analysis situations related to direct practice, administration and planning, and policy making. The course provides students with the opportunity to acquire personal computer skills in Microsoft Excel and the Statistical Package for the Social Sciences (SPSS) to calculate statistics and present results. Students are required to complete SW 318 prior to entering the major. Students majoring in social work must earn a grade of C or better in this course.

Course Objectives

By the end of the course, the student should be able to:

1. Explain the logic of the research process and its relationship to social work knowledge and practice;
2. Explain, calculate, and interpret descriptive statistics including: basic terminology, scales, notations, frequency distributions, measures of central tendency, measures of dispersion, and the normal distribution;
3. Read and analyze basic charts and graphs, contingency tables, and SPSS output results;
4. Explain, calculate, and interpret inferential statistics including probability and hypothesis tests;
5. Identify and apply the correct statistical technique to the research question;
6. Understand that statistics are value neutral, but can be used to support discriminatory and prejudicial value positions contrary to the values of social work, especially against special populations (e.g., women, people of color, people with disabilities, gays and lesbians);
7. Use computer technology to compute descriptive and inferential statistics; and
8. State several examples of how statistics are used as a tool in the “real world” by social service agencies to analyze client outcomes.

Required Materials

The text for this course is:

Frankfort-Nachmias, C., & Leon-Geurrero, A. (2002). Social statistics for a diverse society, 6th edition. Thousand Oaks, CA: Pine Forge Press.

The text includes a student version of SPSS (Statistical Package for the Social Sciences) that can be installed on a PC computer. We will mainly use SPSS to do the statistical calculations needed for this course.

If you do not have a personal computer, the necessary hardware and software is available in the LRC computer lab, as well as many other computer labs on campus. There is a list of computer labs and the policies governing their use at the web site address: http://www.utexas.edu/computer/labs.html . You can complete homework assignments in the Learning Resource Center (LRC) on the first floor of the School of Social Work building. LRC schedules are posted in the computer lab.

In order to use the computers in campus computer labs you need an IF (Individually Funded) account. Details about IF accounts, including how to obtain one on-line are available at the web address: http://www.utexas.edu/cc/account/.

Many course materials, mainly lecture notes and homework assignments, will be done in BlackBoard. Through BlackBoard, the syllabus and any updates are available for downloading; datasets for problems are available for downloading; lecture notes and homework assignments will be made available and completed online; and your grades on homework will be available online to you. 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.

Class Policies

The University of Texas at Austin is proud of its students' commitment to academic integrity and their pledge to abide by it's policy on scholastic dishonesty. The tradition of scholastic honesty is maintained by the cooperation of students and faculty members. Official University policies on scholastic dishonesty are stated in Appendix C, Chapter 11 of The Institutional Rules on Student Services and Activities. These policies may be found in General Information, and may also be accessed from the Student Judicial Services web site. 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.

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.

The University of Texas at Austin provides upon request appropriate academic accommodations for qualified students with disabilities. For more information, contact the Office of the Dean of Students at 471-6259, 471-4641 TTY.

Homework Assignments

There are 17 homework assignments scheduled that each student will need to complete during the semester, and your answers will be entered in BlackBoard on a computer. The purpose of the homework assignments is to give you practice solving problems with data.

Weekly homework assignments will consist of statistical questions asked about a dataset. The homework assignments will require you to use SPSS to answer the questions. When you have computed your answer, you will enter the answer to the question in BlackBoard. When you have finished the assignment and submitted it for grading, it will be graded immediately and you will receive feedback for each question on the homework.

Homework assignments will be available on the course web page at the conclusion of the class in which they are assigned and must be completed by the date of the next exam, at which time access to the homework assignment expires.

Each student's homework assignment will be drawn randomly from a test bank of questions. Each student's homework will contain comparable, but not identical questions. The homework assignment may be redone as many times as you wish. You will be given a different selection of questions each time you redo the assignment. **BlackBoard will record your grade for the last attempt, so if you retake a homework assignment, BlackBoard will record your most recent attempt, not your highest score**.

NOTE: BlackBoard does not save your answers until you have "Submitted" the assignment. If your computer malfunctions or you become disconnected, you will have to redo the assignment. Furthermore, if you click out of the assignment without saving or submitting your answers, BlackBoard may freeze up and prevent you from accessing the questions for that homework assignment. Please have all of the PowerPoint files and SPSS data sets open before you begin taking the homework assignment, and be sure to save your answers before clicking out of the assignment to try to prevent this from occurring.

Each student is expected to complete their homework assignments individually. I do not have any mechanism to be certain that this expectation for individual work is satisfied; however, the format and problems on exams will be the same format as the homework problems. The homework is designed to prepare you to do well on the exams, both in terms of content and the process of entering the information into the computer. If you have a difficult time answering homework questions or using SPSS or BlackBoard, your performance on exams will likely suffer.

Exams

There are four exams in this course. Exams will focus on the content in the classes since the previous exam. However, since the content in a statistics course is cumulative, there are inevitably cumulative elements to exam questions. In preparing for exams, students should focus on the content since the last exam and review the material from the previous classes, which will be the foundation for the current topics.

Many exam questions will be in the same format as homework assignments, and will include conceptual questions from the text as well as statistical problems to solve. Exams will be time-limited to the 80 minute class period.

Exams are to be taken at the scheduled time. Please note the dates of the exams and do not miss those dates. To be given a make up date for an exam, a doctor's note will be required.

Class Attendance

Class attendance is required, and there is a class participation component to your grade. Role will not, however, be taken in class. It is expected that students will attend class, where many topics are stressed or explained in better detail than text offers, and it is expected that students will participate in class by asking questions, answering questions posed by the lecturer, and participating in group projects. Furthermore, it is expected that students will only miss class for medical emergencies, doctor's appointments, and university sanctioned activities that may occur during the semester. Failure to attend class lectures will likely hurt your chances of receiving a high grade in this class.

Grading

Each student's final grade in the course will be based on homework/exam grades and class attendance.

Activity	Percent of Homework/Exam Grade
Homework	15%
Exam 1	20%
Exam 2	20%
Exam 3	20%
Exam 4	20%
Class participation	5%

Letter grades will be assigned according to the following scale:

A = 93.00% - 100.00% of total possible points
A- = 90.00% - 92.99% of total possible points
B+ = 87.00% - 89.99% of total possible points
B = 83.00% - 87.00% of total possible points
B- = 80.00% - 82.99% of total possible points
C+ = 77.00% - 79.99% of total possible points
C = 73.00% - 77.00% of total possible points
C- = 70.00% - 72.99% of total possible points
D = 60.00% - 69.99% of total possible points

F = 59.99% or less of total possible points

Point totals will not be rounded up to a higher grade. Since students have the opportunity to repeat homework assignments to improve their grade, there is ample opportunity to assure that they have sufficient extra points to secure a desired grade.

Class Schedule

The anticipated schedule of activities for this course follows. The instructor reserves the option to modify the schedule if deemed necessary. References to chapters are the chapters in the textbook.

Date	Readings from Text to Prepare for Class	Class Activities	Homework Assignment
Class 1 Thursday, August 25		• Discuss syllabus and class expectations	
Class 2 Tuesday, August 30	Chapter 1. The What and Why of Statistics	• Lecture on chapter 1	Homework 1: Level of measurement problems
Class 3 Thursday, September 1	Chapter 1, Continued	• Introduction to SPSS	Continue working on Homework 1
Class 4 Tuesday, September 6	Chapter 2. Organization of Information: Frequency Distributions	• Lecture on Chapter 2 • Practice Frequency Distribution Problems	Homework 2: Frequency distributions (reading tables)
Class 5 Thursday, September 8	Chapter 3. Graphic Presentation	• Lecture on Chapter 3 • Practice Frequency Distribution Problems	Homework 3: Frequency distributions (interpretation)
Class 6 Tuesday, September 13	Chapter 4. Measures of Central Tendency	• Lecture on Chapters 4 • Practice Central Tendency Problems	Homework 4: Central tendency problems

Class 7 Thursday, September 14	Chapter 5. Measures of Variability	• Lecture on Chapter 5 • Practice Variability Probs	Homework 5: Variability problems
Class 8 Tuesday, September 20	In class review	• Review for Exam 1	
Class 9 Thursday, September 22	Exam 1		

Class 10 Tuesday, September 27	Chapter 10: Relationship between two variables (crosstabulation)	• Lecture on Chapter 10 • Practice Crosstabulation Problems	Homework 6: Crosstabulation
Class 11 Thursday, September 29	Chapter 10: Relationship between two variables (elaboration)	• Lecture on Chapter 10 • Practice Elaboration Problems	Homework 7: Elaboration
Class 12 Tuesday, October 4	Chapter 13: Bivariate Regression and Correlation	• Lecture on Group Differences • Practice group differences • Lecture on Chapter 13	Homework 8: Describing Group Differences
Class 13 Thursday, October 6	Comparing groups on measures of central tendency and dispersion	• Lecture on Chapter 13 (cont'd) • Practice regression and correlation	Homework 9: r and r^2

Date	Readings and Class Activites		Homework
Class 14 Tuesday, October 11	In class review		• Review for Exam 2
Class 15 Thursday, October 16	Exam 2		
Class 16 Tuesday, October 18	Chapter 6: The Normal Distribution	• Lecture on Chapter 6	Homework 10: Z-scores and percentiles
Class 17 Thursday, October 20	Chapter 6, Continued	• Practice Z-scores and percentiles	Continue working on Homework 10
Class 18 Tuesday, October 25	Chapter 7:Sampling and Sampling Distributions	• Lecture on Chapter 7 • Practice Sampling Distributions	Homework 11: Sampling Distributions
Class 19 Thursday, October 27	Chapter 8: Estimation	• Lecture on chapter 8 • Practice estimation	Homework 12: Point estimates and confidence intervals
Class 20 Tuesday, November 1	Chapter 9: Testing Hypotheses About Two Samples (read thru p. 278)	• Lecture on Logic of Hypothesis testing	Homework 13: Hypothesis testing

Class 21 Thursday, November 3	In class review		• Review for Exam 3
Class 22 Tuesday, November 8	Exam 3		
Class 23 Thursday, November 10	Chapter 9, Continued (p. 278 to end of chapter)	• Lecture on testing mean differences	Homework 14: Independent samples t-test

Class 24 Tuesday, November 15	Chapter 11:The Chi-Square Test	• Lecture on Chapter 11 • Practice Chi-square problems	Homework 15: Chi-square test of independence
Class 25 Thursday, November 17	Chapter 14: Analysis of Variance	• Lecture on Chapter 14 • Practice Oneway ANOVA	Homework 16: Oneway ANOVA
Class 26 Tuesday, November 22	Review Chapter 13: Regression and Correlation	• Hypothesis tests in regression and correlation • Practice correlation coefficient (Pearson's r)	Homework 17: Hypothesis tests in regression and correlation
Thursday, November 24	NO CLASS DAY: Thanksgiving		
Class 27 Tuesday, November 29	In class review		• Review for Exam 4
Class 28 Thursday, December 1	Exam 4		