

UNIVERSITY OF NORTH TEXAS
Department of Sociology
SOC 3280: Quantitative Methods of Social Research
Tues/Thurs.; 11:00 - 12:20, Gateway 141

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I. Learning Objectives:

- A. To obtain a basic understanding of the value of using quantitative methods to better understand the world we live in
- B. To accurately interpret statistical tables
- C. To differentiate between levels of measurement and to identify appropriate statistics for each level of measurement
- D. To understand measures of central tendency
- E. To recognize independent and dependent variables and to measure the effect that one has on the other
- F. To estimate a population parameter using a sample
- G. To test an hypothesis

II. Learning components

- A. Readings: To help meet the objectives, the following book is required reading:

Frankfort-Nachmias, Chava and Leon-Guerrero Anna (2011). Social Statistics for a Diverse Society (7th Edition). Pine Forge Press: Thousand Oaks, CA. (6th edition could work)

This book can be purchased with or without SPSS (statistical software package for the social sciences). We will be using SPSS throughout the semester. The UNT computer labs have SPSS on the UNT computers. However, if you want to do your homework assignments at home, you will

need to purchase the book with the SPSS software and install it on your home computer.

- B. Class time: will be focused on the objectives through lectures, class discussions, and working through problems in class using IBM-SPSS.
- C. Homework Assignments: Homework assignments are worth 20% of the final grade so be sure to do all homework assignments (there will be 4 - 6). Homework assignments, turned in after the start of class on the assignment's due date, will not be accepted. **No homework assignments will be accepted over the internet.** They must be typed (except for formulas and tables which can be hand written) and turned in at the beginning of the class period when they are due. Homework assignments can greatly enhance a student's ability to understand statistical concepts and will help when taking tests.
- D. Assistance outside of class: I will be available during my office hours and by appointment (see above). I do enjoy working individually with students who are giving a lot of their time and effort to the course and will be happy to assist you in understanding the material. However, if you miss class often or are clearly not putting much effort into understanding the material (e.g., haven't done the readings, haven't done the homework assignments), I will not provide a private makeup lecture. You may also obtain help from the Teaching Assistant. Further, here is a website that will give you practice quizzes, study questions, flash cards, exercises, and data sets: <http://www.pineforge.com/frankfort-nachmiasstudy5/>. Also, the Business School provides a statistics lab in the Business Learning Building room 131, open most weekdays from 9am until 10pm.

III. Course Policies

- A. Class Attendance: regular and punctual class attendance is expected. It will be difficult to master all the material if class is missed (particularly since later lessons are based on earlier ones so, if you miss class, it will affect your performance in the future). Further, **if you miss class you may miss receiving a homework assignment.** Students who miss no more than two classes will likely receive several extra points added to her/his

final grade. On the other hand, students who routinely come to class late or leave early will have points subtracted from her/his final grade.

- B. Extra Credit: Students will be able to obtain extra credit points during most of our classes. Extra credit points will be added to the student's next test score. For example, students may be given a problem to work out during class and then be asked to turn it in before the end of class. If the student has clearly attempted to answer the problem, the student will get an extra point added to her/his next test score. Students who are absent, or come to class late, or leave class early will not be eligible for these extra points.
- C. Academic integrity: as the student guidebook points out, academic integrity is required. Plagiarism and cheating will result in failure and a report to the Dean.
- D. Special Needs: appropriate adjustments and auxiliary aid are available for persons with disabilities. See Professor Yeatts and/or call 817-565-2456 (TDD access 1-800-735-2989).
- E. Cell Phones: Cell phones **must** be turned off and put away during tests. Texting or otherwise using a cell phone during class, other than on a rare occasion, will negatively affect a student's final grade.
- F. Computers: all monitors should be lowered at the beginning of class. Laptops will only be permitted if the student is sitting in the front row.
- G. Grading: final grades will be based on the following:

Four (4) tests will be given with each worth 20% of your final grade (homework assignments make up the remaining 20%). Grades will be posted on Professor Yeatts' web page. The format is expected to include short answers, statistical problems, and possibly multiple choice and matching. The instructor has the discretion to decide if a makeup exam will be granted. If granted, it must be taken within one week of the original test date—students, without a doctor's note, will be deducted a letter grade. If you arrive significantly late for an exam, your exam score

will be penalized. You will need a calculator with a square root key (but you may not use a graphing calculator). **You may not use your cell phone or a communication device as a calculator during an exam.**

	<u>Points</u>
Test 1 (February 19)	20%
Test 2 (March 26)	20%
Test 3 (April 16)	20%
Test 4 will be given on exam day (May 12 th , 10:30 - 12:30)	20%
Homework Assignments (all assignments combined) (February 12, March 12, April 9, May 5)	20%

Class Participation: Those who routinely contribute questions and comments/ideas will receive extra points added to their final grade if their final grade is close to the next higher grade. For example, an 88 would be raised to a 90. Similarly, students who miss none or one/two classes will likely receive extra points on their final grade.

IV. Topics to be Covered/Reading Assignments:

All chapter assignments listed below refer to the required text book.

Week 1:

Jan. 20: Introduction to the course
Chapter 1: The What and the Why of Statistics

Week 2:

Jan. 27: Chapter 1 (continued)
Chapter 2: Organization of information: Frequency distributions

Week 3:

Feb. 3: Chapter 4: Measures of central tendency (Chapt. 4 will be covered before Chapt. 3, please read both of these this week)
Chapter 3: Graphic Presentations

Week 4:

Feb. 10: Chapter 5: Measures of Variability. Students will not be responsible for pages 138 - 150. However, the class material will cover these topics (IQV, range, IQR, box plot) and students will be responsible for the material presented in class.

Feb. 12: Homework assignment due

Week 5:

Feb. 17: Chapter 5 continued
Review homework
Use of SPSS to examine Measures of central tendency and
Measures of variability
Review of chapters 1 - 5

*****Feb. 19: Test 1 (Thurs.) covering chapters 1-5 and class material*****

Week 6:

Feb. 24: Chapter 6 (The Normal Distribution). Students will not be responsible for pages 182 - 205. However, material from these pages will be covered in class and students will be responsible for all class material covered.

Week 7:

March 3: Chapter 7: Sampling and Sampling Distribution. Students will not be responsible for pages 216 - 236. However, material from these pages will be covered in class and students will be responsible for all class material covered.

Week 8:

March 10: Chapter 8: Estimation
March 12: Homework Assignment Due

Spring Break (March 16 - 20)

Week 9:

March 24: Chapter 8: Estimation (continued)
Review homework
Review Chapters 6 - 8

March 26: Test 2 (Thursday) covering chapters 6 - 8 and class material

Week 10:

March 31: Chapter 9: Testing Hypotheses

Week 11:

April 7: Chapter 9 continued
Chapter 10: Bivariate Tables

April 9: Homework Assignment Due

Week 12:

April 14: Chapter 10 continued
Review homework

****April 16: Test 3 (Thursday) covering chapters 9 - 10 and class material****

Week 13:

April 21: Chapter 11: The Chi-Square Test and Measures of Association

Week 14:

April 28: Chapter 12: Analysis of Variance

Week 15:

May 5: Regression and Correlation (Chapter 15 covers this topic but you will not be responsible for this chapter. You will be responsible for all material covered in class.

May 5: Homework Assignment Due

May 7: Review homework and chapters 11 and 12 and class material

****May 12: Test 4 (Tuesday) covering chapters 11 - 12 and class material****