

Sociology 3112-002**Introduction to Social Statistics**

Spring 2011

University of Utah

TH 9:10 AM-11:30 AM, BEHS 106

Instructor: Vincent Kang Fu

Office: 303 BEH S

Email: vincent.fu@soc.utah.edu

Phone: (801) 585-5930

Office hours: after class and by appointment

Course website: <http://www.soc.utah.edu/courses/soc3112>

Lab/teaching assistants

TBA

Course summary

This course introduces students to the building blocks of traditional statistical inference in the context of social science. Statistics is a set of tools and techniques researchers use to describe and draw conclusions about the world. We begin by studying descriptive statistics including frequency distributions, and measures of central tendency and variability. We next study basic inferential statistics and learn how to use sample data to draw well-reasoned conclusions about the population. Finally we study ways to describe relationships between variables, including measures of association and bivariate regression.

Course requirements and grading

Class and lab attendance are important to success in this course. Failure to attend lectures or labs will result in a lower grade. To encourage class attendance, there will be several unannounced quizzes during the semester. These MAY NOT be made up, but I will drop your lowest quiz grade. You will also be graded on 3 exams. Prior approval is necessary to miss an exam and will only be given in extreme cases. Exams and quizzes are unique to each section of this course. Homework for each chapter (posted on the class website) will be due at the next class meeting after the lecture on each chapter is completed. Late homework will not be accepted, although you may miss one homework assignment without penalty. This course also includes a lab component where you will learn the mechanics of carrying out statistical analyses using a computer. Your final grade will be based on your homework assignments (15 percent), lab performance (15 percent), quizzes (20 percent), and 3 exams (50 percent).

Contact the teaching assistants or me **immediately** if you are having difficulty with any aspect of this course. Do not wait until the day before an exam to ask for help! By then it may be too late!

Text

Frankfort-Nachmias, C. and A. Leon-Guerrero. 2009. *Social Statistics for a Diverse Society*. Fifth edition. Thousand Oaks, California: Pine Forge Press.

Americans with Disabilities Act (ADA)

The University of Utah seeks to provide equal access to its programs, services and activities for people with disabilities. If you will need accommodations in the class, reasonable prior notice needs to be given to the Center for Disability Services, 162 Olpin Union Building, 581-5020 (V/TDD). CDS will work with you and the instructor to make arrangements for accommodations.

All written information in this course can be made available in alternative format with prior notification to the Center for Disability Services.

Advice

Many of you may feel anxiety about learning material that requires math and equations. It would be dishonest to claim that statistics employs no math, but this course requires only the most elementary mathematics—arithmetic and very simple algebra. Do not be put off by this minimal math: You can do it!

It is a bad idea to fall behind in any course, but it is fatal to do so in this course. Understanding the topics covered in later weeks requires a good grasp of material covered in earlier weeks. Because we have a great deal of material to cover, this course is necessarily fast paced. Attend the lectures regularly and do the homework on time. If you miss classes, skip homework assignments, and cram for the exams, you will almost surely do poorly.

This is also not the kind of course in which it will be easy to bring your grade up at the end of the semester by studying extra hard for the last exam and later quizzes. The material we cover increases in difficulty as the semester progresses. Students usually find that the material covered in the beginning of the class is much more straightforward than the topics at the end of the semester. To improve chances of success in this course, you must buckle down at the beginning of the semester.

Academic honesty

If you are caught cheating on a quiz or exam—or helping someone else to cheat—you will receive a failing grade for the course. Other forms of academic misconduct will be dealt with accordingly. All instances of academic misconduct will be also referred to the Department Chair or Dean of the College. Don't do it! It's just not worth it!

Course outline and reading schedule

Note that this outline is tentative. Discussion and test dates may change.

January	11	Introduction & Chapter 1: The What and Why of Statistics
	13	Chapter 2: Organization of Information: Frequency Distributions
	18	Chapter 3: Graphic Presentation & Chapter 4: Measures of Central Tendency
	20	
	25	Chapter 5: Measures of Variability
	27	
February	1	Review
	3	Exam #1: Descriptive Statistics

March	8	<u>Chapter 6: The Normal Distribution</u>
	10	
	15	<u>Chapter 7: Sampling and Sampling Distributions</u>
	17	
	22	Chapter 8: Estimation
	24	
	1	Chapter 9: Testing Hypotheses
	3	
	8	Review: <u>Exam #2 Key</u>
	10	<u>Exam #2: Hypothesis testing</u>
	15	<u>Chapter 10: Relationships Between Two Variables: Cross-Tabulation</u>
	17	
	22	Spring break
	24	Spring break
	29	<u>Chapter 11: Chi-square Test</u>
	31	
	5	<u>Chapter 12: Measures of Association for Nominal and Ordinal Variables</u>
	7	
	12	<u>Chapter 13: Regression and Correlation</u>
	14	
April	19	<u>Chapter 14: Analysis of Variance</u>
	21	Review
	26	<u>Exam #3: Relationships between variables</u>