Sociology 3112-001
Introduction to Social Statistics
University of Utah
Fall 2014

Instructor: Megan M. Reynolds, Ph.D.
Office: BEH-S 303
T, Th 9:10-10:30 am
Office Hours: immediately after class & by appt.
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OVERVIEW

Designed for the math-minded and math-phobic alike, this course will introduce students to the fundamentals of statistics and their application in the social sciences. We will study a wide variety of subjects this semester related (but not necessarily limited to) a.) the generation of tabular and graphical "descriptive statistics" summarizing groups of data; and b.) the generation of "inferential statistics" generalizing from small to larger groups and testing hypotheses about relationships among different social factors. After taking this course, students should be able to:

- translate statistics into substantive (ie.- real-world) conclusions
- understand how different statistics are constructed
- identify the appropriate statistic(s) for a given type of question
- appreciate how commonly statistics are manipulated to misrepresent social patterns

EVALUATION

The final grade will depend on four criteria: 1) three exams (50% of your final grade); 2) six homework assignments (15%); 3) a set of quizzes, one per class meeting (20%) and 4.) lab participation (15%).

The grade breakdown is as follows:

A	94%-100%
A-	90%-93.9%
B+	87%-89.9%
B	84%-86.9%
B-	80%-83.9%
C+	77%-79.9%
C	74%-76.9%
C-	70%-73.9%
D+	67%-69.9%
D	64%-66.9%
D-	60%-63.9%
E	0%-59

Exams
There will be three exams over the course of the semester. Each exam will consist of a combination of short answer questions and calculations and will cover concepts addressed in class and in assigned readings. Each exam will be worth approximately 17 percent of your final grade. If missed, exams can only be made up if the student gives previous notification of justifiable reasons for non-participation or provides documentation of exigent circumstances. Note that no "final exam" will be held during final examinations week.

Homework
There will be a total of six homework assignments, the purpose of which is to prepare you for the abovementioned exams. These assignments are graded on a credit/no credit basis, and each assignment will be worth 2.5 percent of your final grade. The homework assignments will be due at the beginning of class on the designated due date. **Neither late assignments nor electronic copies of assignments will be accepted under any circumstances**.

Group Quizzes
We will conclude each class with a quiz that is to be completed in groups of 3-5 students. While graded, these quizzes are primarily designed to serve as an opportunity for you to assess your understanding of the material covered in class that day. Each quiz will be worth approximately 1 percent of your final grade.

Labs
In your first class you will be required to sign up for ONE hour of lab time per week: Monday 9:40am - 10:30am in OSH 277, Wednesday 10:45am-11:35am, in BEH S 101 or Thursday 8:00am-8:50am in BEH S 101.A more specific lab syllabus will be distributed on the first day of class.

***Extra credit**
You may earn extra credit by writing short responses to newspaper and/or journal articles you identify that incorporate any of the topics we go over in class. Your goal should be to evaluate the extent to which the statistical evidence presented supports the argument(s) made and/or to identify additional statistical approaches that might have been used to further substantiate the argument(s). I reserve the right to assess how much extra credit is awarded for each article. Be aware that I will only allow extra credit to "bump your grade" by one letter grade. That means you can go from a C- to a C or a B to a B+, but you can't go from a D to an A based solely on extra credit.

COURSE MATERIALS

The assigned textbook for this course is *Social Statistics for a Diverse Society* by Frankfort-Nachmias and Leon-Guerrero. The sixth edition of this text is available in the bookstore. However, you are welcome (encouraged, really) to obtain the earlier, and nearly identical, editions for a substantial savings elsewhere. Readings provide further elaboration and example of the concepts covered during lecture. While there will be some overlap in the material covered in the text and during class, this repetition serves as an opportunity to more fully grasp the concepts being introduced. Thus, students should always read materials prior to lecture and should bring the readings with them to class. You will also need a calculator with a square root function. You should bring it with you to each and every class.

OTHER GUIDELINES

1. **Cell phone and computer use (unless expressly authorized) is not permitted during class.**
2. I cannot overemphasize the importance of regular class attendance. Because we'll be going over so much material in such a short amount of time, missing even one class could be detrimental to your grade.
3. I will provide online access to the material covered in lecture, but my personal notes will not be made available to students.
4. My grades and any given by the teaching assistants are final and records of student participation are not open to debate.
5. Students with disabilities or language barriers that may affect their ability to participate fully in the class or to complete all course requirements should provide reasonable prior notice needs to the Center for Disability Services, 162 Olpin Union Building, 581-5020 (V/TDD). CDS will work with you and I to make arrangements for any and all necessary accommodations.
6. Please observe the rules of good discussion. In particular, please consider the following: a) be good listeners to your fellow students; b) please respect my attempts to balance student contributions to discussion; c) try to focus your discussion on course and/or broader sociological topics (anecdotes/personal experience should be kept to a minimum); d) give critical consideration to various perspectives (including your own!).
7. Respect the University of Utah Student Code. Academic misconduct *includes, but is not limited to, cheating, misrepresenting one's work, inappropriately collaborating, plagiarism, and fabrication or falsification of information…It also includes facilitating academic misconduct by intentionally helping or attempting to help another to commit an act of academic misconduct."* All instances of academic misconduct will be referred to the Department Chair or the Dean of the College. For detailed definitions and possible academic sanctions please see: http://www.admin.utah.edu/ppmanual/8/8-10.html.
8. Please be advised that this syllabus a living document. I reserve the right to, and most likely will, make changes in accordance with the needs of the class, although I will notify students of any and all such changes prior to their implementation.

CALENDAR OF TOPICS AND ASSIGNMENTS

Date	Topic:	Readings:	To-Do List:
Aug. 26	Intro & Syllabus	None	Sign up for a lab time
Aug. 28	The Centrality of Statistics in Minimizing Human Stupidity and the Consequences Thereof	None	
Sept. 2	The What and Why of Statistics: Terminology, Usage, etc.	TBA	
Sept. 4	How (Not) to Lie with Statistics: Using and Abusing Statistics in the Popular Media	TBA	
Sept. 9	Frequency Distributions and Graphic Presentation	None	
Sept. 11	Measures of Central Tendency: Mean, Median and Mode	TBA	
Sept. 16	Measures of Variability: Range, Variance and Standard Deviation	TBA	
Sept. 18	Summary and Review	None	
Sept. 23	**EXAM #1—YOU MAY USE ONE SHEET OF NOTES AND A CALCULATOR**	None	Turn in homework assignments #1 and #2
Sept. 25	Introduction to Inferential Statistics	TBA	
Sept. 30	Z-Scores and Percentiles	TBA	
Oct. 2	Sampling and the Sampling Distribution	TBA	
Oct. 7	Estimation and Introduction to Hypothesis Testing	TBA	
Oct. 9	One-Group Hypothesis Testing	TBA	
Oct. 14-Oct. 16	**NO CLASS—FALL BREAK**		

Oct. 21	Review of Everything You Forgot Over Fall Break; Two Group Hypothesis Testing	TBA	
Oct. 23	More Two Group Hypothesis Testing; Review for Exam #2	TBA	
Oct. 28	**EXAM #2—YOU MAY USE ONE SHEET OF NOTES AND A CALCULATOR**	None	Turn in homework assignments #3 and #4
Oct. 30	Relationships Between Two Variables, Cross-Tabulation	TBA	
Nov. 4	The Chi-Square Test	TBA	
Nov. 6	Measures of Association for Nominal-Level Variables	TBA	
Nov. 11	Measures of Association for Ordinal-Level Variables	TBA	
Nov. 13	Bivariate Regression	TBA	
Nov. 18	More Bivariate Regression	TBA	
Nov. 20	Analysis of Variance	TBA	
Nov. 25	More Analysis of Variance	TBA	
Nov. 27	**NO CLASS—THANKSGIVING**		Calculate the mean turkey consumption in your household
Dec. 2	Introduction to Multivariate Regression	TBA	
Dec. 4	More Multivariate Regression; Interaction Terms	TBA	
Dec. 9	Summary and Review		
Dec. 11	**EXAM #3—YOU MAY USE ONE SHEET OF NOTES AND A CALCULATOR**		Turn in homework assignments #5 and #6