INTRODUCTION TO SOCIAL STATISTICS

SOC 3112-090, Spring 2014, 04 Credits

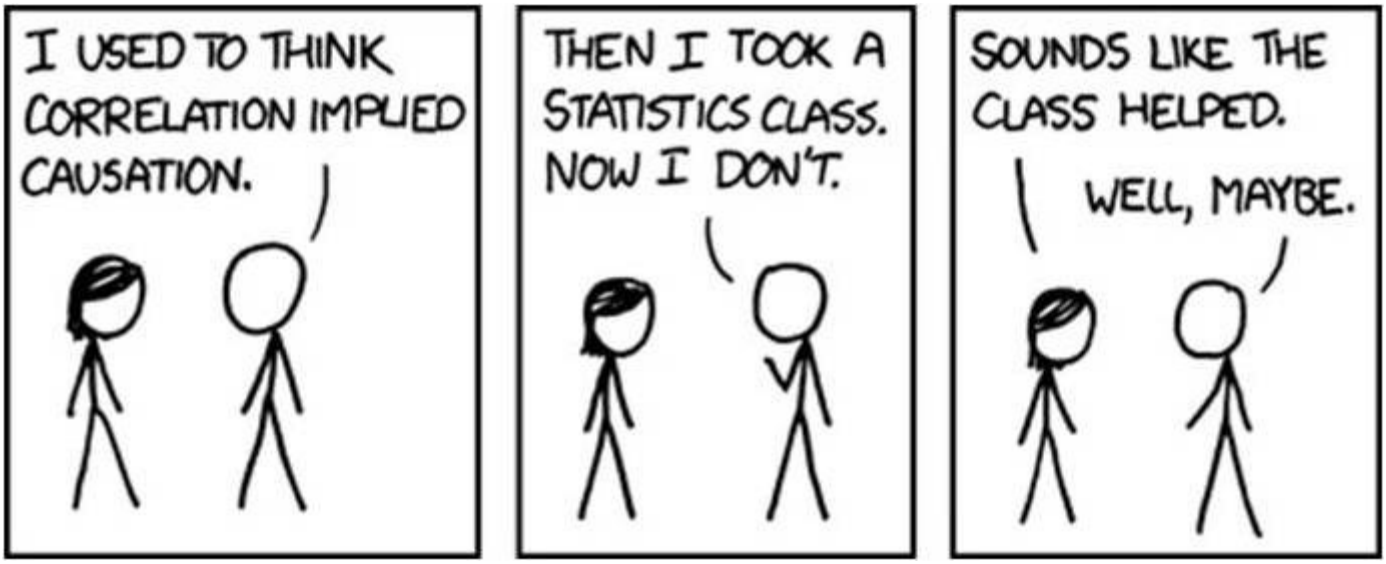

Photo credit: http://imgs.xkcd.com/comics

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Office Hours: TBA or by appointment

Course Overview

Course Summary

This course fulfills the Quantitative Reasoning (QB) and Quantitative Intensive (QI) requirement of the University of Utah. Basic algebra knowledge is required.

This course introduces you to the world of empirical research for social sciences. It aims at providing you the abilities to calculate and interpret statistics in social context. Strong quantitative skills will assist you not only in academic success but also in your daily activities.

There will be three sections in this class. First, we will start with descriptive statistics, namely frequency distribution, measures of central tendency and variability. Second, we will move on to basic inferential statistics and drawing conclusion about the population. Finally, we will study how to describe relationship between variables, including measure of association, correlation and bivariate regression.

Course Objectives

By the end of this course, you will be able to:

- Calculate descriptive statistics
- Calculate inferential statistics
- Measure relationship between variables
- Interpret statistics within the context of social sciences

Required Text and Material

Frankfort-Nachmias, C. and A. Leon-Guerrero. 2010. *Social Statistic for a Diverse Society*. 6th Edition. Sage Publications. (Older versions should be fine)

Calculator (with square-root function)

Teaching and Learning Methods

- This course will be divided into lecture, practice and lab session. Theory (covered in lecture) and practice will be during class time. I will use the practice time to help you work on your homework assignments, or practice problem sets. Since this course content is *very intense*, I expect you to pay attention and engage in class activities to help you save time and effort doing homework or exam reviewing.
- Lab hours are for SPSS learning and practice. I expect you to utilize your lab hours to integrate the lecture with your final research project. I also encourage you to share your comments/question with me and other students in class or during lab hours.
- In this course you will be asked to perform individual and group's tasks. Individual tasks will help you practice statistic calculation while group activities will help you interpret those numbers and how to work in a team.
- Any resource needed in this course will be available on your canvas. Be sure to check you U-mail or canvas regularly for update and class announcement.

Policies

- *Attendance:* Class attendance is a crucial component to success in this class. I will take attendance *randomly* through group activities. Make sure when you go to class, join some group work and write down your name on a piece of paper for your participation credit.
- *Punctuality:* I would appreciate if no one shows up late. For some reasons you're late for the class, please respect me and other students.
- *Food & Drink:* No food is allowed in classroom and computer lab. Water and soft drink are okay in class but not in computer lab.
- *Technology/Cyber Vices:* Cell phone must be on silent/vibration only. You can use laptop/computer to take note in class or lab. No laptop/computer and cell phone allowed on test day.
- *Late Work:* No late work or make up exam excepted unless you acknowledge me beforehand.

- *Reading assignment:* You will find much of the material covered in this course *overwhelming*. Reading the text before the class will help you understand the lecture and participate in group activities.

- *Review Session:* You can, *collectively* as a group, request a review session to help you study for the exam if the class designated for exam preparation does not serve you well. Also, at the end of the semester, extra lab hours will be set up based on request for research project assistance.

Student Support Resources

Americans with Disabilities Act (ADA) Statement

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 information in this course can be made available in alternative format with prior notification to the Center for Disability Services. (www.hr.utah.edu/oeo/ada/guide/faculty/)

Wellness Statement

Personal concerns such as stress, anxiety, relationship difficulties, depression, cross-cultural differences, etc., can interfere with a student's ability to succeed and thrive at the University of Utah. For helpful resources contact the Center for Student Wellness - www.wellness.utah.edu; 801-581-7776.

[Additional Resources – There are many fabulous resources on campus that you may wish to list, depending on your course, Department, College or School (e.g., Veteran's Center, Counseling Center, LGBT Center, International Center, ESL Program, Women's Resource Center, etc.). Consider doing some research for your own purposes and then include links to center websites as needed.]

Technology

We will be using SPSS in our class to explore descriptive, inferential statistics, relationship between variables, and measures of association. SPSS is available in any computer lab on campus. You can also access SPSS from Remote Desktop: https://apps.csbs.utah.edu/Citrix/XenApp/auth/login.aspx. Remote Desktop will allow you to access to SPSS and other computer software off campus using your student ID and password. To enjoy full functions of SPSS, you can purchase premium version from IBM (not suggested).

Assessments

Homework (10 points each): 20%

There will be a total of *14 assignments*. Homework will be a couple of questions at the end of each chapter. Announcement on your homework will be posted on canvas. You are expected to turn in homework online during the period shown below in the Schedule rubric.

Online Exams (100 points each): 80%

There will be *three online exams*. Each exam will be two hours long and will cover all materials in one section. You are expected to complete your exam during exam period listed below in the Schedule rubric. No makeup exam is allowed except it is a *medical condition*.

Grading Scale

90-100%: A 80-89: B 70-79: C 60-69: D 0-59: E

Grades will not be curved.

Tentative Schedule

Week	Content	Readings *(Read for this week)*	Assignments *(Due on this week)*
	Section 1: Descriptive Statistics		
Jan 6-10	The What & Why of Statistics	Chapter 1	#1: Read your syllabus!
Jan 13-17	Frequency Distribution & Graphic Presentation	Chapter 2 & 3	#2: Video & Comments
Jan 20-24	Measure of Central Tendency	Chapter 4	#3: Frequency Distribution
Jan 27-31	Measure of Variability	Chapter 5	#4: Central Tendency
Feb 3-7	***Exam 1 Period***		#5: Variability
	Section 2: Inferential Statistics		
Feb 10-14	Normal Distribution	Chapter 10	
Feb 17-21	Sampling and Sampling Distribution	Chapter 11	#6: Normal Distribution
Feb 24-28	Estimation	Chapter 12	#7: Sampling Distribution
Mar 3-7	Testing Hypotheses	Chapter 13	#8: Estimation
Mar 10-14	**Spring Break: Take a Break if You Can!**		
Mar 17-21	Chi-square Test	Chapter 14	#9: Testing Hypothesis
Mar 24-28	***Exam 2 Period***		#10: Chi-square Test
	Section 3: Relationship between Variables		
Mar 31-Apr 4	T-test	Chapter 16	
Apr 7-11	ANOVA	Chapter 17	#11: T-test

Apr 14-18	Cross-Tabulation	Chapter 6	#12: ANOVA
Apr 21-25	Bivariate Correlation & Regression	Chapter 8	#13: Cross-Tabulation
Apr 28-30	***Exam 3 Period***		#14: Correlation-Regression

Revised on October 14, 2013