SOC 3112-01 Fall 2014

Introduction to Social Statistics

Day: Tuesdays Time: 6:00 pm to 8:45 pm Location: Sandy Campus Instructor: Yvette Young

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How is it that pollsters are able to predict how the entire country is going to vote in a presidential election after talking to only 1000 people? How can social scientists draw conclusions about a large population after studying only a small sample? This course explores the answers to those questions and more as we take a look at both descriptive and inferential statistics within the context of the social sciences. The ultimate goal of this class is to improve your critical thinking skills and make all of you more discerning consumers of information.

Introduction to Social Statistics SOC 3112-01 Summer 2014



Instructor: Yvette Young, M.S. Teaching Assistant(s): TBA

Office: BEHS 314 Office Hours: Before and after class and by appointment

^{*}This syllabus is based on the syllabi of Tom Quinn, Yiqing Yang and Vincent Fu who taught or are teaching the same course.



COURSE SUMMARY

This four-credit course fulfills the Quantitative Reasoning (QB) and Quantitative Intensive (QI) requirement of the University of Utah. It is designed for students to gain a basic understanding of common statistics widely applied in the analysis of social science data. Statistics is a set of tools and techniques researchers use to organize, summarize, and communicate information in the attempt to describe and draw conclusions about human conditions as well as the world around us.

Descriptive statistics and inferential statistics are main components of this course. Descriptive statistics will allow you to summarize and describe data. Inferential statistics will allow you to make estimates about a population (i.e. all the students in the U) based on a sample (i.e. 200 or 500 students in the U). The course also covers hypothesis testing and the basics of regression analysis.

COURSE OBJECTIVES

The student will become an educated consumer of statistical information, capable of applying what is learned in this course to deal with statistical information presented in daily life and in their academic field, as well as of analyzing and discerning the uses and abuses of statistics.

REQUIRED TEXT

Linneman, Thomas J. 2014. Social Statistics: Managing Data, Conducting Analyses, Presenting Results. New York: Routledge. ISBN: 9780415661478

Optional Text

Salkind, Neil. 2013. *Statistics for People Who (Think They) Hate Statistics*. Fifth edition. Sage Publications. ISBN: 9781452277714

You can use your personal computer to do the calculations, or you will need a scientific calculator (with square-root function) in your daily study.

COURSE REQUIREMENTS AND GRADING			Grading Scale	
Class attendance is an essential component of success in			Α	94-100
this course. Because we'll	be going o	ver so much material	A-	90-93.9
in such a short amount of time, missing even one class			B+	87-89.9
circumstances, accept late work.			В	84-86.9
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Your final grade will be based on the following:			C+	77-79.9
• Exams (3)	30%		С	74-76.9
• Homework	15%		C-	70-73.9
• Group Quizzes	20% 15%		D+	67-69.9
Real World Stats	5%		D	64-66.9
• Final Project	15%		D-	60-63.9

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COURSE REQUIREMENTS AND GRADING

Exams (30% of Final Grade):

There are two exams in this class. Each is worth 15% of your final grade. They will be a combination of multiple choice, matching, short answer and problems requiring statistical calculations. You may use a calculator and one sheet of notes for each exam. *Exams are not cumulative, but the material in each chapter builds on information learned in previous chapters.*

Homework (15% of Final Grade):

All homework assignments consist of problems at the end of each chapter of the required text. Specific problems will be listed on canvas. Homework problems are due the week <u>after</u> the chapter is discussed in class.

Group Work and Group Quizzes (20% of Final Grade):

Weekly group exercises or quizzes will be given at the end of each class. Students will work together in small groups to complete the exercise or quiz. Each group exercise or quiz will be graded on a 10-point scale.

Lab Exercises (15% of Final Grade):

A portion of each class will be devoted to learning statistical software (SPSS). Weekly exercises will be completed using SPSS and submitted on Canvas. Access to SPSS is provided in CSBS computer labs and via a web-based VPN.

Computer Labs: Sandy Campus, BEH S 101 and OSH 277 VPN Access: http://apps.csbs.utah.edu/

Real World Stats (5% of Final Grade):

Each student will bring 2 examples of statistics that they have seen, heard or read about in the news or popular media. Students' real-world stats will be presented and discussed briefly at the beginning of class. Examples should reflect the topics to be covered in class that day or the topic from the previous week.

Final Project (15% of Final Grade):

Each student will complete a small <u>statistical</u> research project using a real data set on a topic that interests them. Students will present their project on the last day of class.

ACADEMIC HONESTY

Following the Student Code means zero-tolerance for academic misconduct in this course. "Academic misconduct," according to the University of Utah Student Code, "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.

THIS SYLLABUS IS SUBJECT TO CHANGE. It is the student's responsibility to check Canvas for corrections or updates to the syllabus. Any changes will be clearly noted in advance through course announcement or Canvas email.





TENTATIVE SCHEDULE (LIN indicates the Linneman text. SAL indicates the Salkind text.)

Date		Topics	Reading	
Week 1: 8/26	Part One:	Introduction and Descriptive Statistics		
		Introduction and Key Terminology	SAL: Chapter 1	
Week 2:		Finding and Managing Data, Sampling, Frequency Tables	LIN: Chapter 1	
Week 3:		Graphing Data	LIN: Chapter 2	
Week 4:		Central Tendency and Variability LIN: Chapter 3		
Week 5		Exam 1		
Week 6	Part Two:	Probability and Significance		
		Hypothesis Testing and the Standard Normal Distribution	SAL: Chapter 7 & 8	
Week 7		Probability and Statistical Significance	SAL: Chapter 9	
10/12 - 10/19		FALL BREAK-No Class		
Week 8	Part Three:	Inferential Statistics		
		Cross Tabulations and Chi-Square Tests	LIN: Chapter 4	
Week 9		Exam 2		
Week 10		Confidence Intervals	LIN: Chapter 5	
Week 11		T-Tests and ANOVA	LIN: Chapter 6	
Week 12:		Correlation and Linear Regression	LIN: Chapter 7	
Week 13:		Inference and Regression	LIN: Chapter 8	
Week 14:		Dichotomous Independent Variables in Regressions	LIN: Chapter 9	
Week 15: 12/9		Multiple Regression	LIN: Chapter 10	
Final Exam		Final Project Presentations (Tuesday 12/6)		

ACCOMMODATIONS POLICY

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 Union Building, 581-5020 (V/TDD). CDS will work with you and me to make arrangements for accommodations. Some of the readings, lectures, films, or presentations in this course may include material that conflicts with the core beliefs of some students. Please review the syllabus carefully to see if the course is one that you are committed to taking. If you have a concern, please discuss it with me at your earliest convenience.