

Social Statistics

SOC 312-090 (online)

Spring 2019

0 credit hours

Instructor: Guadalupe Aguilera

Communication method: Canvas email

Office: BEHS 330

Office Hours: By appointment

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Communication method: Canvas email

Office Hours:

Course Overview

Course Summary

This course meets the General Education Quantitative Reasoning B (QB) requirement and the Bachelor of Science degree Quantitative Intensive (QI) requirement at the University of Utah. The goal of this course is to equip students with basic calculation and interpretation skills used in statistical analyses and quantitative social science research. The course begins with a discussion of descriptive statistics, including frequency distributions, graphs, and measures of central tendency and variability. Next, the course offers an introduction to inferential statistics, including t-tests, ANOVA, and chi-square. Finally, the course examines relationships between variables and measures of association, including bivariate regression and correlations. Ultimately, this course will prepare students for an increasingly information-based society by improving or gaining the ability to use and critically evaluate data. Students will also improve or gain the ability to assess the strengths and limitations of quantitative research and uses in daily life.

Course Objectives

Throughout the semester, this course will address the following Learning Outcomes: Critical Thinking, Quantitative Literacy, and Foundations & Skills for Lifelong Learning. Homework assignments and class work will assess each student's ability to define, calculate, and interpret statistical concepts. At the end of this course, the student will be able to:

- Critically read and interpret the news and other sources of information
- Explain statistical ideas in the social sciences
- Compute, summarize, and graphically present statistics
- Interpret and compute inferential statistics based on samples
- Apply probability theory to test hypotheses
- Differentiate between various statistical techniques
- Identify appropriate statistical techniques for particular variables and research questions
- Explain basic concepts and interpretations of regression analyses

General Approach to the Course

All materials will be handled via Canvas; with the exception of Discussions, all work is submitted via Canvas Quizzes. Do not be confused by the name, as the *Quizzes* tab simply offers question formats suitable for our class (e.g. multiple choice, fill in the blank, true or false, etc.). Due dates are always on Mondays.

Homework is open during the week of the given topic. Labs complement lectures and offer experience with statistical software. In addition to chapter readings, PowerPoint lectures, and lab lectures found on Canvas Pages, the homework also serves as study material for exams. Exams are open book, but must be completed individually, without collaboration between students. Although collaboration is permitted on homework and labs, the work of each student must be their own, as individual submissions are required. Students are highly encouraged to use Canvas Discussions to study with classmates—especially as the semester progresses, the course material may become overwhelming. Extra credit points will be offered on select Discussions (announcements will be made throughout the semester as to which Discussions count as extra credit).

Course Materials

- **Required:** Chava Frankfort-Nachmias and Anna Leon-Guerrero. 2015. *Social Statistics for a Diverse Society* 7th Edition. Thousand Oaks, CA: Sage Publications.
- Lectures associated with labs (found within Canvas Pages) are also required reading.
- PowerPoint lectures found in the Files tab on Canvas.
- Basic calculator (with the square root function)

Course and University Policies

- Late work is not accepted without advanced notice.
- Academic Misconduct Statement: Per University of Utah regulations (Policy # 6-400). “A student who engages in academic misconduct,” as defined in Part I.B. and including, but not limited to, cheating, falsification, or plagiarism, “may be subject to academic sanctions including but not limited to a grade reduction, failing grade, probation, suspension or dismissal from the program or the University, or revocation of the student’s degree or certificate. Sanctions may also include community service, a written reprimand, and/or a written statement of misconduct that can be put into an appropriate record maintained for purposes of the profession or discipline for which the student is preparing.” More information can be found at <http://regulations.utah.edu/academics/6-400.php>.
- Addressing Sexual Misconduct: Title IX makes it clear that violence and harassment based on sex and gender (which includes sexual orientation and gender identity/expression) is a Civil Rights offense subject to the same kinds of accountability and the same kinds of support applied to offenses against other protected categories such as race, national origin, color, religion, age, status as a person with a disability, veteran’s status or genetic information. If you or someone you know has been harassed or assaulted, you are encouraged to report it to the Title IX Coordinator in the Office of Equal Opportunity and Affirmative Action, 135 Park Building, 801-581-8365, or the Office of the Dean of Students, 270 Union Building, 801-581-7066. For support and confidential consultation, contact the Center for Student Wellness, 426 SSB, 801-581-7776. To report to the police, contact the Department of Public Safety, 801-585-2677(COPS).
- The Student Code: Students and faculty at the University of Utah are obligated to behave in accordance with the ordinances of the University. The Student Code (or Students’ Rights and Responsibilities) is located on the Web at: <http://www.admin.utah.edu/ppmanual/8/8-10.html>. You are encouraged to review this document. All of the rights and responsibilities applicable to both the student and the faculty member will be observed during the semester.

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 Union Building, 581-5020 (V/TDD). CDS will work with you and the instructor to make arrangements for accommodations.

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; or 801-581-7776.

Assessments

Homework (25%): Weekly homework assignments (a total of 12 assignments) are due on Canvas by 11:59pm on Mondays. Each assignment is worth 10 points. Homework questions are adapted from each assigned chapter. Answers will be available the day after the homework assignments are due, thus late work will not be accepted. In addition to readings from the required textbook and the lectures, use the homework assignments as study material for exams.

Labs (15%): To complete labs (5 total), you will need data (provided), access to SPSS (provided) and to download the Citrix receiver. Each lab will require that students follow a set of instructions for obtaining statistics through the statistical package, SPSS. Then, students are expected to answer questions related to SPSS output—this is the “lab”.

- **Lab instructions and questions** can be found on our Canvas portal under the **Quizzes tab**
- **Lab data** can be found in the **Files tab** in a folder called *Data*.
- **Lab video tutorials** can be found in Canvas Pages.
- **SPSS** is accessed remotely via the Citrix receiver, an app that is installed onto your device.
- **Instructions for Citrix setup** can be found [here](#).

Lab questions must be answered in Quizzes and submitted by 11:59pm on the due date, always a Monday. Contact the College of Social and Behavioral Science Computing [Helpdesk](#) during the first week of class if you encounter difficulties with the Citrix setup process or the Statistical Package for the Social Sciences (SPSS) that we will use for labs. Citrix essentially allows access to the CSBS virtual lab, where various software programs are available to students in our college.

Exams (60%): Each exam is worth 20% of the course grade. The first exam is due **February 11th**, the second on **April 1st**, and the third exam is due on **May 1st**. Each exam must be submitted via the Quizzes tab by 11:59pm on the due date, always a Monday. The exams are online and timed (2.5 hours each) but will be available for one week. Once you begin the exam, you must complete the exam in one session.

Extra Credit: Extra credit options, that in total equate to two homework assignments, will be announced throughout the semester.

Grading Scale

94-100%: A 87-89%: B+ 77-79%: C+ 67-69%: D+ <60%: F
90-93%: A- 83-86%: B 73-76%: C 63-66%: D
80-82%: B- 70-72%: C- 60-62%: D-

Grades will not be curved.

Schedule

Note: The syllabus is subject to change. Proper notice will be made on Canvas if any necessary changes occur. Students are responsible for staying updated on Canvas announcements and emails.

Course Schedule

Date	Topic	Readings	Lab/Exam	Homework
Section 1: Descriptive Statistics				
01/07 - 01/14	The What & Why of Statistics	Ch. 1		Assignment 1
01/14 - 01/21	Frequency Distribution	Ch. 2	Lab 1	Assignment 2
01/21 - 01/28	Measures of Central Tendency	Ch. 4		Assignment 3
01/28 - 02/04	Measures of Variability	Ch. 5	Lab 2	Assignment 4
02/04 - 02/11	<i>Exam 1</i>			
Section 2: Inferential Statistics				
02/11 - 02/18	Normal Distribution	Ch. 6		Assignment 5
02/18 - 02/25	Sampling and Sampling Distribution	Ch. 7		Assignment 6
02/25 - 03/04	Estimation	Ch. 8	Lab 3	Assignment 7
03/04 - 03/11	Testing Hypotheses	Ch. 9		Assignment 8
03/11 - 03/18 (Spring Break: 03/10 - 03/17)	Bivariate Tables/Cross-tabulation	Ch. 10		
03/18 - 03/25	Chi-square Test	Ch. 11 (p. 247-363) & Onchiri (2013)	Lab 4	Assignment 9
03/25 - 04/01	<i>Exam 2</i>			
Section 3: Relationships Between Variables				
04/01 - 04/08	Measures of Association for Nominal and Ordinal Variables	Ch. 11 (p. 363-375)		Assignment 10
04/08 - 04/15	Analysis of Variance (ANOVA)	Ch. 12		Assignment 11
04/15 - 04/22	Bivariate Correlation & Regression	Ch. 13	Lab 5	Assignment 12
04/22 - 05/01	<i>Exam 3</i>			