Introduction to Social Statistics Sociology 2061, Spring 2013

Instructor:

Rob Kemp, Ketchum 35, robert.kemp@colorado.edu

Office Hours: Mondays 10:30a-1:00p or by appointment

Course goals: The primary goal of this class is to provide you with the skills necessary to understand the basics of quantitative sociological research, and to be critical consumers of statistical information presented in classes, in the media, and in the workplace. I hope you will leave this class: understanding why statistical knowledge is a crucial element of being an engaged citizen; appreciating the relationship between statistical techniques and substantive claims about the way the world is; feeling capable of interacting with statistical knowledge in your daily life without fear; and able to conduct statistical analyses at a rudimentary level independently.

Course meetings: The class meets Mondays, Wednesdays, and Fridays 2-2:50 in RAMY N1B23.

Course materials: The textbook used for the course is <u>Social Statistics for a Diverse Society</u>, 6th Edition, written by Chava Frankfort-Nachmias and Anna Leon-Guerrero and published by Pine Forge. I will also allow and support the use of the 5th Edition of this book. You can purchase the textbook at the bookstore or you can find an online version at <u>www.coursebooks.com</u>. One note about the book: there are a number of useful appendices in the book, including a section with answers to odd-numbered exercises. If you are struggling with a chapter, you can do those problems and check your own answers. You may find Microsoft Excel useful for homework and lab exercises, but this is not a requirement. If you do not personally have access to a copy of Excel, campus computers are available to you. Excel will make your homework less tedious, and will enable you to explore some basic statistical questions with data that we provide. This is a particularly good option for students who want additional challenge or find the pace of the course too slow.

Course requirements: The course requirements are straightforward. Homework assignments will provide you with an opportunity to work with the material and identify concepts and ideas that you need additional help with, and exams will test your comprehension of the material. Attendance is not required, but it is *strongly encouraged* (*I often provide shortcuts and helpful information in lecture not available in the book or online*).

Exams: There will be four in-class exams in this course. Exams 1-3 will cover only the material in each section, and exam 4 (the final) will be cumulative in nature. Any missed exam will result in a score of 0, and make up exams will be given only in the

case of a documented emergency. Please contact me prior to the exam or as soon as possible in the event of an emergency or other conflict.

Homework assignments: There will be one homework assignment due leading up to each of the first three exams, totaling 3 homework assignments. Homework will be graded as follows: 75% of your grade will be based on completeness (if you complete the assignment, you receive the full 75%), and the remaining 25% will be based on accuracy of one question chosen at random. Late homework assignments will not be accepted except in the event of a pre-arranged late exam. Homework is collected on the day of the exam.

Online Quizzes: Quizzes that are designed to check for understanding will be administered periodically on the Desire2Learn Online Platform. You will be emailed to notify you of the quiz, and it will be announced in class. The quiz will allow you to answer until you get it right, but the questions will require you doing the work first rather that being multiple choice. The quiz will allow you 3 attempts at each question to get the correct answer, after that you are stuck with the final answer.

Final grades: Grades for the course will be based on the following elements. Exams count for more as the semester goes on and you become more familiar with the exam structure.

Exam 1	15%
Exam 2	17.5%
Exam 3	20%
Exam 4 (Final)	25%
Homework	7.5%
Online Quizzes	15%

Course expectations and policies

Classroom etiquette: Please refrain from engaging in conversations with your neighbors during class, as this can be quite disruptive to those around you. Laptops are permitted in the classroom for notetaking only. Doing other activities is disruptive to students around you, and will result in revocation of your personal laptop privilege and assigned seating in the front row. If you observe a student sitting near you using their computer for anything other than taking notes, please let us know so that I can deal with the situation. If I find out that students are violating this policy, we will have to ban computers entirely. Please remember to turn off your cell phones before class begins.

Students and faculty each have responsibility for maintaining an appropriate learning environment. Those who fail to adhere to such behavioral standards may be subject to discipline. Professional courtesy and sensitivity are especially important with respect to individuals and topics dealing with differences of race, color, culture, religion, creed, politics, veteran's status, sexual orientation, gender, gender identity and gender expression, age, disability, and nationalities. Class rosters are provided to the instructor with the student's legal name. I will gladly honor your request to address you by an alternate name or gender pronoun. Please advise me of this preference early in the semester so that I may make appropriate changes to my records. See policies at http://www.colorado.edu/policies/classbehavior.html and at httml#student_code

Email policy: If you contact me via email, please put "2061" in the subject line so that we can identify student emails and respond to them in a timely manner. If you do not use this subject line, I cannot guarantee a response to your email. Please note that university policy prohibits the discussion of student grades via email, so please do not email us with questions about your grade. I check email at specific times M-F, those times are at 10:00 am and 3:00 pm. If I read your email during those sessions, you can reasonably expect a response in the hour or so after these times. Otherwise, emails sent after 3:00 pm will be read the next day at 10:00 am or emails sent after 3:00 pm on Friday will be read on Monday at 10:00. Despite these general rules, I retain the right to respond whenever is convenient for me and fair to you that might fall outside these times.

Assignment policies: All assignments must be submitted on time and **in person (when applicable)**. I will neither accept nor acknowledge assignments submitted via email, left in mailboxes, or placed under office doors.

Honor code: All students of the University of Colorado at Boulder are responsible for knowing and adhering to the academic integrity policy of this institution. Violations of this policy may include: cheating, plagiarism, aid of academic dishonesty, fabrication, lying, bribery, and threatening behavior. All incidents of academic misconduct shall be reported to the Honor Code Council (honor@colorado.edu; 303-735-2273). Students who are found to be in violation of the academic integrity policy will be subject to both academic sanctions from the faculty member and non-academic sanctions (including but not limited to university probation, suspension, or expulsion). Other information on the Honor Code can be found at http://www.colorado.edu/policies/honor.html and at http://www.colorado.edu/academics/honorcode/

Syllabus Changes: I reserve the right to change the basic course work and requirements with adequate notice to students via D2L, in-class announcements, and/or email.

Special accommodations for...

...Religious holidays: The University of Colorado at Boulder has legal and moral obligations to accommodate all students who must be absent from classes or miss scheduled exams in order to observe religious holidays. If you will be absent from class for a religious observance, you must notify me of any scheduling conflicts in writing by September 15th.

...Learning disabilities: If you have specific physical, psychiatric, or learning disabilities and require accommodations, please bring me a letter from Disability Services by September 15th so that your needs may be addressed. Disability Services is located in Center for Community N200 (303-492-8671), and information is available at www.colorado.edu/disabilityservices. If you have a temporary medical condition or injury, see guidelines at

http://www.colorado.edu/disabilityservices/go.cgi?select=temporary.html

...Student athletes: If you are on an athletic team and will be missing classes, please get me a letter by the week before the FIRST EXAM. It is your responsibility to look ahead on the syllabus and deal with any conflicts (e.g., scheduled assignments) prior to the conflicting activity. Merely providing a letter to me does not mean that you have dealt with these conflicts—you are responsible for working with me to develop a plan to cover any absences.

Discrimination and Harassment: Any student who believes s/he has been the subject of sexual harassment or discrimination or harassment based upon race, color, national origin, sex, age, disability, creed, religion, sexual orientation, or veteran status should contact the Office of Discrimination and Harassment (ODH) at 303-492-2127 or the Office of Student Conduct (OSC) at 303-492-5550. Information about the ODH, the above referenced policies, and the campus resources available to assist individuals regarding discrimination or harassment can be obtained at http://www.colorado.edu/odh

DAILY SCHEDULE OF TOPICS AND ASSIGNMENTS

NOTE ON OPEN FRIDAYS: Fridays are your time to ask questions and work through homework in class. We may also cover additional material in these course meetings that I am unable to cover in class sufficiently. I am available to help you work through homework and other questions after any information I choose to present at the beginning of class.

Day: Date	Topics	Assigned reading	Assignments
1: M January 14	Course introduction Chapter 1		
2: W January 16	Causality, variables		
3: F January 18	Frequency distributions	Chapters 2 and 3	
M January 21	NO CLASS: MLK Jr. Day		
4: W January 23	Graphic types		
F January 25	No Physical Class. Online Questions and Assistance.		
5: M January 28	Measures of central Chapter 4 tendency		
6: W January 30	Exploring data		
7: M February 4	Variability	Chapter 5	
8: W February 6	Standard deviation		
9: F February 8	In class exam		Homework 1 due (chs. 1-5)
10: M February 11	Normal distribution	Chapter 6	
11: W February 13	Z-scores	1	
12: M February 18	Sampling types, principles of probability	Chapters 7 and 8	
13: W February 20	Estimation and confidence intervals		
14: M February 25	Assumptions of hypothesis testing, research and null hypotheses	Chapter 9	
15: W February 27	Errors in hypothesis testing, t statistic		
16: M March 4	Hypothesis Testing for		

	Proportions		
17: W March 6	Testing hypotheses about two samples		
F March 8	Review Day		
M March 11	In class exam		Homework 2 due (chs. 6-9)
18: W March 13	Cross-tabulation	Chapter 10	
19: F March 15	Properties of a bivariate relationship		
M March 18	NO CLASS		
20: W March 20	Chi-square test	Chapter 11	
21: F March 22	Hypothesis testing with chi- square		
March 25-29	NO CLASS: Spring Break		
M April 1	Hypothesis testing with chi- square		
W April 3	Review Day		
F April 5	In class exam		Homework 3 due (chs. 10, 11)
22: M April 8	Introduction to regression and correlation	Chapter 13	
23: W April 10	Bivariate Regression Basics		
24: M April 15	Regression Estimation		
25: W April 17	Linear Regression Model Assessment and Uses		
F April 19	No Physical Class. Online Questions and Assistance		
26: M April 22	Multiple Regression		
27: W April 24	ANOVA Tests	Chapter 14	
28: M April 29	Regression Review		
29: W May 1	Final review		
May 6	FINAL EXAM 7:30-10:00p		