

**University of Colorado Boulder**  
**Introduction to Social Statistics**  
**SOCY 2061-001**

**MEETING TIME:** TR 3:30-4:45

**MEETING DAYS:** 01/14/2014 - 05/01/2014

**CLASSROOM:** HUMN 135

**Instructor:** Ross Knippenberg (you may address me as “Ross”)

**E-mail:** ross.knippenberg@colorado.edu

**Course website:** D2L: <https://learn.colorado.edu/>

**Office hours:** T 12:30-2:30, R 1:30-2:30 (or TR by appointment)

**Office location:** KTCH 215

**Final Exam:** Saturday, May 3, 2014: 7:30pm-10:00pm, HUMN 135

**Teaching Assistant:** Miriam Counterman

**TA email:** miriam.counterman@colorado.edu

**TA office hours:** M 1:30-3:30, W 2:30-4:30

**TA office location:** KTCH 414

**Required Textbook**

*Modern Elementary Statistics, 12<sup>th</sup> ed.* (2007) by John Freund and Benjamin Perles.

**Course Description and Objectives**

Introduces students to quantitative analysis of social phenomena. Emphasizes understanding and proper interpretation of graphs; measures of central tendency, dispersion, and association; and the concept of statistical significance. Assumes students have only limited mathematical background.

Because this course is an introduction to Statistics, I assume that you have not had significant previous experience or coursework in Statistics. For this reason, we will be sticking to the basics and will *not* cover nonparametric tests, any topic requiring calculus, probability theory, or regression analysis, as these topics are to be covered either in a mathematical statistics course.

Math is a skill, so “learning by doing” is important in this class. There are a lot of practice questions in the textbook. Some of them will be selected as problem sets. From problem sets, you will learn how to apply formulas and properties in real questions and be prepared for exams. In addition, some examples not in the book but related to economics will be discussed during class time.

**Instructor’s Expectations of Students**

As a student you will be expected to keep up in class. You should read the appropriate book chapters *before* every class. You should review your notes before and after every class. You should hand in your homework on time.

## **Role of the Teaching Assistant**

This course has a teaching assistant but no recitation. The teaching assistant will hold office hours, grade papers, and hold review sessions before exams.

## **Attendance policies**

Attendance is optional, but regularly attending classes will definitely help your performance and grade. Even for experienced students, a Statistics course can very quickly become confusing. You are responsible for any material covered if you are absent. If you miss a lecture, please borrow notes from another student. Additionally, read the material and attempt the homework before going to office hours. I do not make copies of my lecture notes for students who have missed class.

## **Calculator Note**

As this is a course designed to teach mathematical techniques you will need a calculator that can do basic mathematical functions. These include exponentials, logarithms, radicals ( $\log$ ,  $\ln$ ,  $e^x$  and  $\sqrt[n]{\phantom{x}}$ ) and factorials ( $x!$ ) would also be beneficial, but not necessary. Any basic scientific calculator will perform these functions. While a graphing calculator may be useful in doing some of the homework problems, **you cannot use a graphing calculator on any exam**. If you don't have a basic scientific calculator, you should purchase one before the first midterm exam.

## **Course Communication**

I will not typically be on campus aside from teaching and office hours. Because of this, your best method of contacting me is by email. For email correspondence, please allow up to 24 hours for a reply, and I generally only respond Monday-Friday 9:00am-6:00pm. I will occasionally send out class-wide emails. Please check your email inbox on at least a daily basis.

## **Office Hours**

I encourage you to attend office hours regularly. If you have another class during office hours, I am open to meeting at other times, but only on Tuesdays and Thursdays. Office hours are like tutoring sessions: I can clarify concepts from lecture and we can go over more examples, and even work on homework questions. However, please come to office hours prepared and ready to work as I do not give away solutions.

## **Grading**

Due to university FERPA policy, under no circumstances am I allowed to discuss grades over email. Please do not email me about your course grade or score on an assignment or exam. I will not respond to any emails requesting information about grades. Additionally, because of the course's grading rubric, the grades are often difficult to calculate until the end of the semester, but if you are interested, we can discuss your grade in office hours.

Every week in which there is no midterm exam, I will create a homework assignment that will be due the following week. Assignments are posted on D2L. Solutions are posted the following week at the same time the graded assignment is returned. Homework is graded on a 0-5 scale with approximate percentage intervals at 0%, 1-20%, 21-40%, 41-60%, 61-80%, 81-100%. Because of the forgiving homework grading scale, I and the TA are tough graders. You may turn in your homework late subject to the following: you will lose 1 point (20%) of your homework score for every class day that it is late,

and the maximum score you may receive after solutions are posted is a 1. You may work together on homework assignments, but you must submit your own handwritten copy. The lowest score is dropped when calculating your average homework grade at the end of the semester.

I will administer two midterm exams in class. The dates for the midterm exams are given below and will not change. The midterms are not cumulative and will cover only the material since the previous exam. You will have to work problems on the exams: there are no multiple-choice or true-false questions.

**There will be NO MAKEUP midterm exams. If you miss one or more midterm exams for whatever reason, the weight of that exam will carry over to the final** (e.g. if you miss one midterm exam, the weight of the final will be 50% and if you miss both midterm exams, the weight of the final will be 70%). Solutions to the midterm exams will be posted on D2L.

**The final exam will be held on Saturday, May 3, 2014 from 7:30-10:00pm in the same room as lecture, HUMN 135.** The final exam is cumulative: half of the exam will cover the same material as that of the first two midterms, and the other half of the final will cover material from after the second midterm. To qualify for rescheduling the final exam time, you must provide evidence that you have three or more exams on the same day and that this final is the last one of the day. This is a university-wide policy. You must provide this information to me before *Friday, March 22<sup>nd</sup>*! Otherwise, there will be **NO MAKEUP FINAL**. Lastly, I may curve the midterm scores but will not curve your final.

I will announce an extra credit project due at the end of the semester. The content, methodology, possible points and will be determined at a later time.

Your grade will be composed of the following:

- 30% - Homework Sets (drop lowest score)
- 20% - Midterm Exam 1
- 20% - Midterm Exam 2
- 30% - Final Exam

Grading Scale:

- 92.5% to 100% A
- 89.5% to 92.4% A-
- 86.5% to 89.4% B+
- 82.5% to 86.4% B
- 79.5% to 82.4% B-
- 76.5% to 79.4% C+
- 72.5% to 76.4% C
- 69.5% to 72.4% C-
- 66.5% to 69.4% D+
- 62.5% to 66.4% D
- 59.5% to 62.4% D-
- 59.4% or lower F

## Tentative Course Schedule: (approximate; subject to revision)

Week	Date	Topics	Course Materials	Assignments
1	Jan 14	1.1-1.3	Introduction	HW1
	Jan 16	2.1-2.5	Listing and Grouping	
2	Jan 21	3.8, 3.1-3.3	Measures of Location	HW2
	Jan 23	3.4-3.7	""	
3	Jan 28	4.1-4.5	Measures of Variation	HW1&2 due; HW3
	Jan 30	n/a	Index of Qualitative Variation	
4	Feb 4	n/a	Covariance & Correlation	HW3 due; HW4
	Feb 6	""	""	
5	Feb 11	5.1-5.4	Probability	HW4 due; HW5
	Feb 13	""	""	
6	Feb 18	7.1-7.3	Expectation	HW5 due
	Feb 20	<b>Midterm 1</b>		
7	Feb 25	8.1-8.8	Probability Distributions	HW6
	Feb 27	""	""	
8	Mar 4	9.1-9.5	The Normal Distribution	HW6 due; HW7
	Mar 6	""	""	
9	Mar 11	10.1-10.8	Sampling Distributions	HW7 due; HW8
	Mar 13	""	""	
10	Mar 18	11.1-11.4	Confidence Intervals	HW8 due; HW9
	Mar 20	""	""	
11	Mar 25	<b>No class</b>	<i>Spring Break</i>	
	Mar 27	<b>No class</b>	<i>Spring Break</i>	
12	Apr 1	""	""	HW9 due
	Apr 3	<b>Midterm 2</b>		
13	Apr 8	12.1-12.2	Tests of Hypotheses: Means	HW10
	Apr 10	12.3-12.4	""	
14	Apr 15	12.5-12.7	""	HW10 due; HW11
	Apr 17	14.1-14.5	Tests of Hypotheses: Count Data	
15	Apr 22	15.3	one-way ANOVA	HW11 due; HW12
	Apr 24	15.4-15.6	two-way ANOVA	
16	Apr 29	15.7-15.10	""	HW12 due
	May 1	Review		
	May 3 (Sat)	<b>FINAL EXAM</b>	7:30pm-10:00pm	

**Students with Disabilities**

If you qualify for accommodations because of a disability, please submit to your professor a letter from Disability Services in a timely manner (for exam accommodations provide your letter at least one week prior to the exam) so that your needs can be addressed. Disability Services determines accommodations based on documented disabilities. Contact Disability Services at 303-492-8671 or by e-mail at [dsinfo@colorado.edu](mailto:dsinfo@colorado.edu). If you have a temporary medical condition or injury, see Temporary Injuries under Quick Links at Disability Services website (<http://disabilityservices.colorado.edu/>) and discuss your needs with your professor.

**Religious Observance Policy**

Faculty in the University of Colorado system have both a legal and moral obligation to provide reasonable accommodations to students who must be absent from classes because of religious holidays. Faculty are expected to develop course-consistent accommodations for students who miss class or graded assignments to observe religious holidays. In this class if you have a conflict, please contact me at the beginning of the semester so that we can make proper arrangements.

**Classroom Conduct**

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 [http://www.colorado.edu/studentaffairs/judicialaffairs/code.html#student\\_code](http://www.colorado.edu/studentaffairs/judicialaffairs/code.html#student_code)

**Discrimination and Harassment Policy**

The University of Colorado Boulder (CU-Boulder) is committed to maintaining a positive learning, working, and living environment. The University of Colorado does not discriminate on the basis of race, color, national origin, sex, age, disability, creed, religion, sexual orientation, or veteran status in admission and access to, and treatment and employment in, its educational programs and activities. (Regent Law, Article 10, amended 11/8/2001). CU-Boulder will not tolerate acts of discrimination or harassment based upon Protected Classes or related retaliation against or by any employee or student. For purposes of this CU-Boulder policy, "Protected Classes" refers to race, color, national origin, sex, pregnancy, age, disability, creed, religion, sexual orientation, gender identity, gender expression, or veteran status. Individuals who believe they have been discriminated against 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://hr.colorado.edu/dh/>

**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](mailto: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://honorcode.colorado.edu>