

SOCY-2061: Introduction to Social Statistics

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Note: We will use Calendly, Google Sheets, or other software to organize sign-ups for OHs.

Course Overview

This course will introduce you to the central concepts behind quantitative research of social phenomena. The primary goal is to present the most basic statistical techniques used by researchers to estimate and test associations in the social world. Our hope is for you to develop skills in order to effectively measure, describe, and analyze quantitative data; infer patterns in samples to populations; and to critically assess empirical claims made by others.

By the end of the semester you should be able to:

1. Appropriately organize and describe raw data using common statistical measures
2. Estimate and interpret measures of central tendency, variability, and correlation
3. Accurately interpret quantitative results in the social sciences
4. Critically evaluate quantitative results presented by others
5. Perform basic but useful functions in the statistical computing program “R”

Please keep in mind that this course is designed to introduce you to the logics of social statistical analyses, not to test your mathematical skills. A basic familiarity with arithmetic and a rudimentary understanding of algebraic functions will be necessary to interpret material presented in the course and to apply the learned techniques. That said, even if you feel insecure about your mathematical abilities, introductory statistics should not intimidate you. Above all else, success in this course requires due diligence. The material in this course will be covered incrementally, with the presentation of new material building on what you learned in prior sections. This course is thereby cumulative in nature. You will have the greatest chance of success if you follow scheduled lectures, take meticulous notes, read the weekly material, and review material in recitations and our office hours.

Statistical analyses in the social sciences have become ubiquitously performed with computer programs. Thus, this course has a minor **optional** computational component. You will have the option to earn extra credit on most homework assignments by generating statistical output with R, a commonly used and free statistical computing program. Download here: <https://cran.r-project.org/>

Course Material:

Textbook: *Essentials of Social Statistics for a Diverse Society*, Fourth Edition. Anna Leon-Guerro and Chava Frankfort-Nachmias. Purchase online from the publisher, Sage (<https://us.sagepub.com/en-us/nam/essentials-of-social-statistics-for-a-diverse-society/book259285>) or rent/purchase elsewhere. Older editions are fine and cheaper. The text is also available via the CU Bookstore in a bundled package with an R textbook, *A Survivor's Guide to R*. The Third Edition of the text has a nice online resource page for students, which can be freely accessed: <https://edge.sagepub.com/ssdsess3e>

R Material: "Data Camp," a free, self-paced, online course at <https://www.datacamp.com/courses/free-introduction-to-r> (you must register, but it's free).

Online Posts: all lectures and R-related material will be posted to the course website.

Course Requirements and Assessment

Course Requirement	%	Total Points	Grading Scale
Exercise 1	3	12	376-400 = A
Exercise 2	3	12	360-375 = A-
Exercise 3	3	12	348-359 = B+
Exam 1	25	100	332-347 = B
Exercise 4	3	12	320-331 = B-
Exercise 5	3	12	308-319 = C+
Exercise 6	3	12	292-307 = C
Exam 2	25	100	280-291 = C-
Exercise 7	3	12	268-279 = D+
Exercise 8	3	12	252-267 = D
Exam 3	25	100	240-251 = D-
Final*	25	100	
Free Points!	1	4	
Total	100	400	

*The exam component of your grade will be calculated using your THREE highest exam scores. Accordingly, the final exam is OPTIONAL. That is, if you are satisfied with your grade at the end of semester you need not take the Final Exam.

POLICIES & ACCOMMODATIONS

Accommodations

1. We recognize the difficulties presented by the SARS-CoV-2 pandemic and will work with you to accommodate the challenges. The course will remain online throughout the semester.
2. Appropriate academic accommodations will be provided to students with disabilities. Please submit your accommodation letter from Disability Services to me in a timely manner (i.e., a week before Exam 1) so that your needs can be addressed. Disability Services determines accommodations based on documented disabilities in the academic environment. Information on requesting accommodations is located on the [Disability Services website](#). Contact Disability Services at 303-492-8671 or dsinfo@colorado.edu for further assistance. If you have a temporary medical condition or injury, see [Temporary Medical Conditions](#) under the Students tab on the Disability Services website.
3. Students involved with CU Athletics (are these still taking place?) shall refer to the course schedule and alert your TA and/or me of any scheduling conflicts by January 23. We believe the online format of the course should accommodate any travel or scheduling conflicts.
4. I am happy to accommodate students who wish to observe religious holidays. Please let me know if there will be any scheduling conflict ahead of Exams and/or Assignment due dates.

Course Expectations and Honor Code

1. I expect academic integrity (and the university requires it!). Although I encourage students to collaborate with one another on exercises, support each other in studying, and edit each other's work, you are expected to turn in original work and complete all exams on your own. Information about the Honor Code can be found at <http://www.colorado.edu/policies/student-honor-code-policy>
2. Every homework assignment will be due at **5pm on Friday** and completed on Canvas via multiple choice answers. We will post .pdf and .docx electronic versions of each assignment to Canvas so that you can download these and work on them prior to submitting answers on Canvas. Emailed assignments will NOT be accepted.
3. You each have one mulligan for the semester to accommodate mishaps. That is, you are each afforded one chance to turn in a late homework assignment without penalty. Mulligan homework assignments are due 5pm the following Monday. Please email your mulligan assignment to your TA.

4. Please know that the syllabus and course schedule are not set in stone. I reserve the right to change the basic course requirements, due dates, and overall content and schedule with adequate notice to students via Canvas, class announcements, and/or email.

Etiquette and Email Policy

Please know that the University provides me a class roster containing your picture and legal name. I will happily honor your request to remove your picture and/or address you by alternative pronouns or an alternative name if you like. Please notify me your preference(s) early in the semester.

Please include “2061” in the subject line of all course-related emails.

Please know that I will respond to most course-related emails during my office hours.

Respect, Discrimination, and/or Harassment

The University of Colorado Boulder (CU Boulder) is committed to fostering a positive and welcoming learning, working, and living environment. CU Boulder will not tolerate acts of sexual misconduct, intimate partner abuse (including dating or domestic violence), stalking, or protected-class discrimination or harassment by members of our community. Individuals who believe they have been subject to misconduct or retaliatory actions for reporting a concern should contact the Office of Institutional Equity and Compliance (OIEC) at 303-492-2127 or cureport@colorado.edu. Information about the OIEC, university policies, [anonymous reporting](#), and the campus resources can be found on the [OIEC website](#).

Please know that faculty and instructors have a responsibility to inform OIEC when made aware of incidents of sexual misconduct, discrimination, harassment and/or related retaliation, to ensure that individuals impacted receive information about options for reporting and support resources.

Basic Needs

Any student who has difficulty affording groceries or accessing sufficient food to eat every day, or who lacks a safe and stable place to live, and believes this may affect their performance in the course, is urged to contact the Office of the Dean of Students (303-492-8478; Center for Community, S430; deanofstudents@colorado.edu). Furthermore, please notify me if you are comfortable doing so, as I am happy to provide or find the resources necessary to help.

Prerequisites

This is a lower-division course and there are no prerequisites.

Spring 2021 Course Schedule for SOCY2061

Week	Topic	Details and Readings
1/11 – 1/15	Course Introduction & Descriptive Statistics	Syllabus, Chapter 1
1/18 – 1/22	Organizing Information	Chapter 2
1/25 – 1/29	Measures of Central Tendency	Chapter 3 1/29: Exercise #1 Due
2/1 – 2/5	Measures of Variability	Chapter 4 2/5: Exercise #2 Due
2/8	Measures of Variability	
2/10	Exam 1 Review	Exercise #3 Due
2/10-2/13	EXAM 1	Begin anytime
2/15 – 2/19	Z-Scores and The Normal Curve	Chapter 5
2/22 – 2/26	Sampling	Chapter 6 2/26: Exercise #4 Due
3/1– 3/5	Estimation	Chapter 7
3/8 – 3/12	t Distribution & Testing Hypotheses	Chapter 8 3/12: Exercise #5 Due
3/15	Testing Hypotheses	
3/17	Exam 2 Review	Exercise #6 Due
3/17-3/20	EXAM 2	Begin anytime
3/22 – 3/26	Associations & Contingency Tables	Chapter 9
3/29 – 4/2	Chi-Square Tests	Chapter 10
4/5 – 4/9	Associations & Correlation	Chapter 11 4/17: Exercise #7 Due
4/12 – 4/16	Correlation & Partial Correlation	Chapter 11
4/19-4/23	Linear Regression	Chapter 11
4/26	Exam 3 Review	Exercise #8 Due
4/28-4/30	EXAM 3	Begin anytime

Optional Final Exam: Your THREE highest exam scores will be used toward your grade.

Exams 1-3 are **not cumulative** and you will have 1 hour to complete the exam after starting. The Optional Final Exam **is cumulative** and you will have 2.5 hours to complete the exam after starting.

The Final exam will be posted 5/1 and you may begin any time between 5/1 and 5/5. Access to the Final Exam on Canvas will close at 7pm (MST) on 5/5.