Instructor: Dr. Sara Avila

Email: sara.avila@colorado.edu

Voice: (720) 312-7796

Zoom: https://cuboulder.zoom.us/my/saraavila

x Office Hours: Tuesdays and Thursdays 9 am - 12 pm using zoom

## INSTRUCTOR BIO

I am an economics instructor with more than two decades of experience. My research interests are in the fields of environmental economics and, more recently, in how to teach economics. I have worked on topics related to air quality, climate change, urban transportation, and biodiversity conservation. I am passionate about building understanding in a diverse environment. I am also an avid (but aging) runner, so when I am not injured, I run every day.

Term Start: Jan 23, 2023

Term End: May 7, 2023

## COURSE WEBSITE

Canvas is our class website:

x Login using your University of Colorado Boulder identikey password
https://canvas.colorado.edu/

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x Note: all email correspondence will be through your CU Boulder email address.

o Do not use the Canvas email messages, it is not checked.

## COURSE DESCRIPTION

This course introduces you to the principles of statistical reasoning and inference. To this end, the ultimate goals of the course are for you to thoroughly understand the following concepts: sampling distributions, hypothesis testing, and confidence intervals across multiple settings.

Organized into fourteen modules, the course is divided into four parts. The first part of the course provides an overview of how data is properly collected and how to explore data using visual and numerical methods. The second part is an introduction to probability theory, discrete and continuous probability distributions and mathematical expectation. The third part introduces sampling distributions, confidence intervals and hypothesis testing. Finally, the last section applies statistical inference to population means, to proportions and to simple regressions.

Course Website: https://canvas.colorado.edu/ (Canvas) Grades and any further additional readings will be posted on Canvas. Please check Canvas frequently for any relevant notifications/changes that may occur throughout the course.

## SUPPLEMENTAL MATERIAL

You will use R, a free statistical package to conduct statistical analysis.

## INSTRUCTIONAL METHODOLOGY AND DELIVERY

This course is delivered via distance education format using the Canvas system. This format will use a combination of readings, online discussion, and other web-based resources. You will interact with the instructor and other students using the communication functions provided by Canvas. You will submit assignments in accordance with the course outline using Canvas. You will also have access to Achieve from the MacMillan Learning catalog.

## COURSE PRESENTATION AND PROCEDURES

There will be 14 modules, in 14 weeks 1 (module per week). You should proceed through one module every week, which will be comprised of readings from the course texts, supplemental class notes, graded discussion questions, exercises and quizzes, exams, and various outside sources of information such as additional readings and video content, among other content.

## COURSE OUTLINE

Review the separate weekly class schedule

## EVALUATION AND GRADING

Course grades will be determined by the completion of assignments, exams, and

## ASSIGNMENTS

(200 POINTS) There will be a 20-point exercise associated with most modules.

x Problem Sets consist of quantitative questions where you will complete questions while showing your work. Problem sets will be in Achieve.

x Your lowest one (1) Problem Set will be dropped from your final grade calats

1. At an accredited college or university testing center in your town or nearby. There may be a cost for using this testing center.
2. With Proctorio or a comparable online proctoring service as determined by your instructor. Online proctoring is a

## ACCOMODATION FOR DISABILITIES

If you qualify for accommodations because of a disability, please submit your accommodation letter from Disability Services to your faculty member in a timely manner 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, see Temporary Medical Conditions on the Disability Services website.

## CLASSROOM BEHAVIOR

Both students and faculty are responsible for maintaining an appropriate learning environment in instructional settings, whether in person, remote or online. 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 race, color, national origin, sex, pregnancy, age, disability, creed, religion, sexual orientation, gender identity, gender expression, veteran status, political affiliation, or political philosophy. For more information, see the classroom behavior policy, the Student Code of Conduct, and the Office of Institutional Equity and Compliance.

## HONOR CODE

> "On my honor, as a University of Colorado Boulder student
> I have neither given nor received unauthorized assistance."

All students enrolled in a University of Colorado Boulder course are responsible for knowing and adhering to the Honor Code academic integrity policy. Violations of the Honor Code may include, but are not limited to: plagiarism, cheating, fabrication, lying, bribery, threat, unauthorized access to academic materials, clicker fraud, submitting the same or similar work in more than one course without permission from all course instructors involved, and aiding academic dishonesty. All incidents of academic misconduct will be reported to the Honor Code (honor@colorado.edu); 303-492-5550). Students found responsible for violating the academic integrity policy will be subject to nonacademic sanctions from the Honor Code as well as academic sanctions from the faculty member. Additional information regarding the Honor Code academic integrity policy can be found on the Honor Code website.

## SEXUAL MISCONDUCT, DISCRIMINATION, HARRASSMENT AND/OR RELATED RETALIATION

If you feel ill and think you might have COVID-19, if you have tested positive for COVID-19, or if you are unvaccinated or partially vaccinated and have been in close contact with someone who has COVID-19, you should stay home and follow the further guidance of the Public Health Office (contacttracing@colorado.edu). If you are fully vaccinated and have been in close contact with someone who has COVID-19, you do not need to stay home; rather, you should self-monitor for symptoms and follow the further guidance of the Public Health Office (contacttracing@colorado.edu).

## COURSE WITHDRAWAL POLICY

Any student who wishes to withdraw from the course can do so by September. 7 For complete information, please visit https://ce.colorado.edu/resources/topics/dates-and-deadlines-general-info/

## ACCOMMODATION FOR DISABILITIES

If you qualify for accommodations because of a disability, please submit your accommodation letter from Disability Services to your faculty member in a timely manner 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 4-9-2-8671 or dsinfo@colorado.edu for further assistance. If you have a temporary medical condition, see Temporary Medical Conditions on the Disability Services website.

## ADDITIONAL SUPPORT SERVICES

A variety of instructional support services, such as writing center, guidance on personal or educational issues, tutoring questions and library resources are available to the students. For more information about their services, visit their website linked under modules on Canvas.

Introduction to Statistics, ECON 3818, SPRING 2023, Avila, University of Colorado Boulder

| Module (start date) | Chapter Number and Topic | Graded Assignments | Due Date by |
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