

Instructor: Dr. Sara Avila

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Office Hours: Wednesdays and Thursdays 10 am -12:15 pm using Canvas Chat or 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 runner coming back from an injury, and I am grateful to have the opportunity to share with you this learning experience.

Term Start: Jan 16, 2022

Term End: May 6, 2022

COURSE WEBSITE

Canvas is our class website:

Login using your University of Colorado Boulder identikey and password

<https://canvas.colorado.edu/>

y # O ECON 4818: Introduction to Econometrics

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

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

COURSE DESCRIPTION

This course provides an introduction to the theory and applications of modern econometrics. The course reviews hypothesis testing and mathematical expectations and then introduces the linear regression model.

Organized into fourteen modules, the course is divided into five parts. The first part reinforces the fundamentals of mathematics and probability theory. The second part introduces simple and multiple regressions. The third part overviews the main assumptions of linear regression models with emphasis in unbiasedness, asymptotics, and heteroskedasticity. The fourth part explores variable transformations. Finally, students are expected to apply their knowledge in a Mini-Project.

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This foundational course is essential to your success in the study of economics. The applications of the tools and skills learned in this course are to be applied to a myriad of areas: health, education, income

ASSIGNMENTS

Exercises (260 POINTS) There will be fourteen 20-point exercises. The first three exercises do not require the use of a statistical package. Exercises in Modules 4-13 will be Computer Exercises through Mindtap. They will be a combination of multiple choice, numeric, and short answer/fill in the blank. They can be done in R (although you can use any statistical package to complete them) and will be open book and open notes. Except for the first three modules, computer exercises will be completed in Mindtap. I will drop the lowest grade.

Homework assignments (200 Points) There will be eleven 20-point Homework assignments. The format will be multiple choice and/or fill in the blank and will be open book, open notes. They may be done in R. You may have 3 attempts at each late-module question and your score is the average. Homework can be completed in Mindtap. I will drop the lowest grade.

Discussion postings (100 POINTS) There will be four 25-point discussion postings. The discussion will occur asynchronously; I will post a discussion question and you will respond to the questions at your convenience prior to the due date. See the class schedule for due dates of posts and comments. Discussions are open book and open note. Discussions will be submitted through Canvas. The initial discussion post is due Thursdays and the discussion response is due Sundays.

Final-Project (150 POINTS) There will be one individual final project. This assignment will be 3 pages in length and a 5-minute video, will be submitted through Canvas. You will investigate your own hypothesis. This paper will encompass most of what we have learned in the class.

Exams (290 POINTS) There will be two (2) exams. The proctored Midterm Exam is worth 140 points and the proctored cumulative Final Exam is worth 150 points. The format of the exam will be multiple choice.

TUTORING

The Economics Department provides a free drop-in tutorial office which offers assistance on all core courses in the major, and occasionally on other undergraduate courses in the Department. Its website is <https://www.colorado.edu/economics/node/513/attachment>.

The Economics Department maintains a list of tutors who are available for private hire. Its website is <https://www.colorado.edu/economics/node/515/attachment>.

TECHNOLOGY SUPPORT

CU Boulder uses Canvas.

Here is the list of recommended system requirements: [Canvas Computer Specifications Page](#)

Here is the detailed list of internet browsers in Windows, MacOS, iOS and Android: [Supported Browsers Page](#)

Technical Support

Canvas technical support. If you are experiencing issues with Canvas please contact:

- o CU Boulder's Help desk at 303-735-4357 (5-HELP) or help@colorado.edu. 5-Help will

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syllabus.

As of Aug. 13, 2021, CU Boulder has returned to requiring masks in classrooms and laboratories regardless

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sanctions from the faculty member. Additional information regarding the Honor Code academic integrity policy can be found at the [Honor Code Office website](#).

SEXUAL MISCONDUCT, DISCRIMINATION, HARASSMENT AND/OR RELATED RETALIATION

The University of Colorado Boulder (CU Boulder) is committed to fostering a positive and welcoming