

University of Colorado Boulder
Department of Economics

Prof. Brian Cadena
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Economics 4848-005
Applied Econometrics, Fall 2018
Office Hours: T/Th 1:00-2:00 PM
Economics 208D
Other times by appointment (just send an e-mail)

TA: Brian Marein
Brian.Marein@colorado.edu
Office Hours: MW 3-5 PM; by
appointment
Economics 309A

Course Description:

This course will teach you to be comfortable with the essential aspects of performing economic analysis on real-world data. In doing so, we will spend a substantial amount of time using STATA, a statistical computer software package designed especially for empirical economic analysis. While you will spend some using pre-prepared datasets, you will also learn to create custom datasets from the US Census Bureau and Bureau of Labor Statistics for original analysis. Students who successfully completed this course have gone on to do applied data work for the government, in industry, or in other research/advocacy/policy contexts. The course meets in Humanities 1B45, each T/Th (8/28-12/13) from 2:00 PM – 3:15 PM, with the exceptions of cancelled lectures due to individual project meetings (tentatively 11/13, 11/15) and Fall Break (11/20, 11/22).

Prerequisites:

To enroll in this course, you must have completed Economics 3070 and at least one of Economics 1088, Math 1081 or Math 1300. Economics 3818 or an equivalent course is also required. These courses must have been passed with a minimum grade of C- regardless of whether you have declared a major in Economics. This course provides practical hands-on training in using statistical software to analyze economic data. To succeed, students will need a basic command of algebra, the ability to take a derivative, and a basic understanding of the mechanics of a hypothesis test. We will review hypothesis testing, but our treatment will assume prior exposure. Students with a continuing interest in econometrics will find complementary material in Economics 4818 as it provides more depth at the theoretical level.

Course Materials:

There is no required textbook for this course. The material to be mastered will be covered in lecture notes and in-class exercises, all of which will be available on the Canvas website. A printed version of the lecture notes is available at the CU Bookstore for the cost of printing and binding.

Students are not required to purchase their own copies of STATA, although those desiring to do so qualify for a substantial discount through the University's

available through a link posted on the Canvas website. I recommend Stata/IC. Prices are \$45 for a six-month license, \$89 for a one-year license, and \$198 for a perpetual license.

You will receive full STATA documentation in PDF format if you choose to purchase the software. If you expect to use STATA beyond this course, you may purchase a more advanced copy or a longer duration license, but the six month I/C version will allow you to complete all the requirements of this course. Otherwise, you may access STATA on lab computers where it is installed, including the lab in the basement of the Economics building. I have provided a link on the course website showing the labs with the software installed. Note that the Economics building is closed on weekends, but it remains open until 10 PM on weekdays. Norlin Library is a good

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things you have done in class but with your own data and focusing on a topic that is of interest to you. Some course time will be spent teaching you how to download and prepare U.S. Census data for analysis, and many students will formulate a research question that can be investigated using Census data. You

Grade	Number of Students	Percent	Percent
A	13	10%	23%
A-	15	12%	
B+	11	9%	28%
B	14	11%	
B-	10	8%	
C+	15	12%	38%
C	14	11%	
C-	18	15%	
D+	2	2%	11%
D	4	3%	
D-	3	2%	
F/W	5	4%	
	124	100%	100%

Other Course Information and Policies

Attendance Requirement: Attendance for this course is **required**. Classes are interactive, and you will get the most out of this course by attending each class meeting. However, I understand that occasionally circumstances necessitate missing a lecture. Thus, students will be allowed up to six absences without penalty. **Students with more than 6 absences (three weeks of class) throughout the semester will fail the course.** Note that there are no additional absences available for standard “excused” reasons (illness, family emergency, transportation problem, etc.). I will take attendance prior to the start of every class period.

Waitlist/Administrative Drops: University policy allows instructors to drop students who do not attend class regularly during the first two weeks. Further, instructors are allowed to determine the amount of nonattendance that will result in an administrative drop.² In this course, I will enforce the following policy: ***If you fail to attend any class meeting in the first two weeks, I will have you dropped from the course as soon as possible.*** Note that this policy may vary from other instructors’ policies, even compared to other classes in the Economics department. If you are administratively dropped during the add window, you may attempt to re-register, but you will be subject to standard waitlist procedures.

Late Assignments/ Missed Examinations Policy: Exams will be submitted through the Canvas website, and there will be incentives to turn them in on time (along with disincentives for working beyond the end of the test period). NOTE: You *must* attend class on the day of the exam to receive credit. Following a ten-minute grace period, I will apply at least a 15 percent penalty to final projects turned in after the deadline, with greater penalties likely for delays of more than 24 hours.

If you miss an exam you will receive no credit unless you provide documentation of a medical or family emergency. In the case of a legitimate emergency, I will treat the score on the missed exam as a missing data point when calculating final grades. In other words, I will give no weight to the exam in the calculation of the final grade, and other assignments will be reweighted proportionately. There will be no make-up exams. If you foresee any conflict that will prevent you from taking an exam, please let me know as soon as possible and at least two weeks beforehand.

Cheating: If you cheat on an exam, you will fail that exam. If you plagiarize even a portion of your final project, you will fail the final project. I reserve the right to impose harsher academic sanctions up to and including failing the course as a penalty for any instance of academic dishonesty.

Requests for Re-grading: If you would like me to re-grade a portion of your exam, you must send me a detailed written request. The request should specifically mention which questions you believe were graded incorrectly and provide justification for why your answers deserved more credit. Requests for grade adjustments not based on specific questions (for example, “my performance on the exam doesn’t reflect how well I know the material”) will be denied.

² More information on this policy is available here:

<http://www.colorado.edu/registrar/students/registration/enroll/drop-class>

Immigration status: the webpage www.colorado.edu/undocumented contains information regarding campus resources available for students and employees with DACA status. You should also feel free to discuss your status and any related issues with Prof. Cadena. I will do my best to provide appropriate accommodation or connect you to the most appropriate on-campus resources.

The **Office of Victim Assistance** (OVA) provides free and confidential information, consultation, support, advocacy and short term counseling services to University of Colorado Boulder students, graduate students, faculty and staff who have experienced a traumatic, disturbing or life disruptive event. OVA is not a part of the police department or the Office of Institutional Equity and Compliance, and is confidential resource for students, staff and faculty. Their webpage is www.colorado.edu/ova and they can be reached by phone at 303.492.8855 and by e-mail at assist@colorado.edu

Tutoring: The Economics Department provides a free drop-in tutorial office, which provides help with all core courses in the major and occasionally on other courses offered by the department. More information at:

Covered Topics and Tentative Schedule

Topic	Tentative Dates
Introduction and Research Design	8/28, 8/30 (Read Mortgage Paper)

How Can I Do Better?

Every semester, I have some students who come to office hours partway through the semester who have performed poorly on one or both midterms and are wondering what they can do differently. I have noticed some differences in the habits of the strongest students compared to those of the students who find themselves in this situation. As a service to you, I am giving everyone access to the advice I expect to give later in the semester – all from day one.

- 1) **Mentally engage in class.** There is a big difference between passively typing in commands and mentally engaging in class to really understand the material. Ask yourself: Can I answer the questions the professor is asking? Do I understand why he is asking them? Am I thinking about what is being done and why, or am I simply writing things down so I can memorize them later?
- 2) **Review class material before the next class.** The material in this course is almost entirely cumulative, and your experience in a class meeting will be much more productive if you have already mastered the material from the previous lectures. Review previous material so that it is fresh in your mind for the next lecture. I'll always open the floor for questions about earlier material at the start of class. You should take me up on

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.

Religious Observances

Campus policy regarding religious observances requires that faculty make every effort to deal reasonably and fairly with all students who, because of religious obligations, have conflicts with scheduled exams, assignments or required attendance. In this course, please inform me no later than two weeks prior to any conflict you foresee, sooner if possible, so that we may find an alternative arrangement for you to complete the requirements of the course. See [campus policy regarding religious observances](#) for full details.