Economics 4848-001: Applied Econometrics
Spring 2018
M/W/F 11:00-11:50 AM
Room: HUMN 1B45
Class Website through Desire2Learn: https://learn.colorado.edu/
No Class: 3/26-3/30 (Spring Break)

Professor Francisca Antman
Office: Economics 222
Office Hours: T/Th 10:50AM-12:20PM, F 9:15-10:45AM
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Course Description & Objectives
This course is designed as an introduction to the practice of applied regression analysis with a focus on developing skills in econometric analysis and interpretation to conduct original research in the field. A variety of data sets will be used throughout the course and students will analyze them using STATA, a statistical software package popular for conducting empirical economic research.

Prerequisites: ECON 3070 (Intermediate Micro) and ECON 3818 (Introduction to Statistics), or its equivalent, all passed with a C- or better. This is a hands-on course, suited to students interested in developing practical skills in applied econometrics. As such, we will review concepts such as hypothesis testing, but prior exposure is assumed. Students interested in a more in-depth theoretical presentation of some of the topics covered in this course can find complementary material in ECON 4818.

Textbook: There are no required texts for this course, but the lectures will draw from the course pack developed by Professor Brian C. Cadena, available on the course website. Lectures may also be supplemented with material from *Introductory Econometrics: A Modern Approach* by Jeffrey M. Wooldridge, Cengage Learning 2016. See the course website for links to useful tutorials and online resources for STATA users.

Software: Students are not required to purchase their own copies of STATA, as it is available in campus computer labs. Students who wish to purchase STATA for the convenience of working on their own devices, should purchase through the University Grad Plan to obtain a substantial discount. Note that you should purchase STATA/IC (currently priced at $45 for a 6 month license), as Small STATA is insufficient for this course.
See details at: https://www.stata.com/order/new/edu/gradplans/student-pricing/

Hardware: Students should plan to bring a USB drive to every class meeting to store their work or be familiar with online storing technologies such as Google Drive.

Course Requirements

1. Class participation and attendance are required, including contributing to our class discussions. Unless otherwise noted in class or on the course website, you are responsible for the material covered in class, so it is in your interest to attend. I may also present exam questions drawn from our class discussions, so it is important to take careful notes. Throughout the semester, we will do exercises in class that will help prepare students for exams. These exercises will be posted on the course website and we will go over them in class. I may collect your responses to the exercises at random points throughout the course. While these assignments may not be formally graded, I will count your level of effort on these exercises along with your attendance and potentially also your participation (e.g. answering questions posed to the class) throughout the course. Up to two lost participation points will be forgiven at the end of the semester. If you miss a class, you are responsible for obtaining notes on the material we covered from another classmate. You are welcome to visit my office hours to discuss the material you missed, but not before you have gone over the material yourself through notes and the course pack if necessary.
2. There will be two midterm exams during class time (see below for dates). There is no excuse for missing an exam unless there is a documented medical or family emergency. Note that you are required to submit documentation of any emergency. In all other cases, failure to take an exam will result in a zero for that exam. If a legitimate emergency arises, other graded work will be re-weighted; no make-up exams will be given. If you foresee any legitimate conflict with the dates of the assignments or exams, please see me at the beginning of the semester or as soon as possible.
3. You will complete one independent original research project that will culminate in a final research paper demonstrating the skills taught in this course (about 6-8 double-spaced pages using 12 point font, including figures and tables). You will determine the research topic and the assignment will focus on original econometric analysis of a relevant data source to address your research question. Some class time with be devoted to downloading and analyzing U.S. Census data, and students may choose to base their research project on these data, however, you are free to choose another data source instead. I will hold individual meetings during class time near the end of the semester to discuss students' research projects and provide individual guidance. No classes will be held during that week in lieu of those individual meetings. See below for individual meeting dates and due date of final paper. The final paper will be submitted in hard copy and electronically so that it may be checked for originality.
4. There will be one cumulative final exam at the end of the course. See below for date and time.

Grading

Attendance, In-class Exercises, Homework, & Participation: 10%
Midterm 1: 20%
Midterm 2: 20%
Research Paper: 25%
Final Exam (cumulative): 25%

Class and University Policies

Accommodation for Disabilities

If you qualify for accommodations because of a disability, please submit your accommodation letter from Disability Services to me 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 (www.colorado.edu/disabilityservices/students). 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 and discuss your needs with me.

Religious Holidays

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 class, please review the course schedule at the beginning of the semester and see me regarding any anticipated conflicts due to religious observances.
See the campus policy regarding religious observances for full details.

Classroom Behavior

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 race, color, national origin, sex, pregnancy, age, disability, creed, religion, sexual orientation, gender identity, gender expression, veteran status, political affiliation or political philosophy. 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. For more information, see the policies on classroom behavior and the Student Code of Conduct.

Sexual Misconduct, Discrimination, Harassment and/or Related Retaliation

The University of Colorado Boulder (CU Boulder) is committed to maintaining a positive learning, working, and living environment. CU Boulder will not tolerate acts of sexual misconduct, discrimination, harassment or related retaliation against or by any employee or student. CU's Sexual Misconduct Policy prohibits sexual assault, sexual exploitation, sexual harassment, intimate partner abuse (dating or domestic violence), stalking or related retaliation. CU Boulder's Discrimination and Harassment Policy prohibits discrimination, harassment or related retaliation based on race, color, national origin, sex, pregnancy, age, disability, creed, religion, sexual orientation, gender identity, gender expression, veteran status, political affiliation or political philosophy. Individuals who believe they have been subject to misconduct under either policy should contact the Office of Institutional Equity and Compliance (OIEC) at 303-492-2127. Information about the OIEC, the above referenced policies, and the campus resources available to

assist individuals regarding sexual misconduct, discrimination, harassment or related retaliation can be found at the OIEC website.

Honor Code

All students enrolled in a University of Colorado Boulder course are responsible for knowing and adhering to the academic integrity policy. Violations of the policy may include: plagiarism, cheating, fabrication, lying, bribery, threat, unauthorized access to academic materials, clicker fraud, resubmission, and aiding academic dishonesty. All incidents of academic misconduct will be reported to the Honor Code Council (honor@colorado.edu; 303-735-2273). Students who are found responsible for violating the academic integrity policy will be subject to nonacademic sanctions from the Honor Code Council as well as academic sanctions from the faculty member. Additional information regarding the academic integrity policy can be found at the Honor Code Office website.

Economics 4848 Tentative Course Outline, Spring 2018

Week	Dates	Material
1	Jan 17-19	Introduction --Economic Research Questions
2	Jan 22-26	Basics of STATA --Loading and Viewing Data
3	Jan 29-2/2	Describing Data --Summary Statistics and Graphs
4	Feb 5-9	Hypothesis Testing -- t Tests
5	Feb 12-16	Simple Regression -- Continuous and Dummy Variables
6	**Feb 19** Feb 21-23	**Midterm 1** --Review Exam in Class
7	Feb 26-3/2	Multiple Regression --Categorical Variables
8	Mar 5-9	Multiple Regression, continued --Interaction Models
9	Mar 12-16	Multiple Regression, continued --Omitted Variable Bias
10	**Mar 19** Mar 21-23	**Midterm 2** --Review Exam in Class
11	Mar 26-30	No classes—Spring Break
12	Apr 2-6	Working with IPUMS Data --Project Tutorial
13	Apr 9-13	Individual Meetings to Discuss Final Projects --During Class Time
14	Apr 16-20	Advanced Topics --Limited Dependent Variables
15	Apr 23-27	Advanced Topics, continued --Fixed Effects & Difference-in-Differences Models
16	Apr 30 **May 2**	Course Review **Final Research Papers Due by 5PM**
	Tue May 8	**Final Exam 1:30-4:00PM**