

Economics 4848 Applied Econometrics
Spring 2019, T/Th 12:30-

Purchasing your own copy of STATA will provide the convenience of working on class material outside of university computer labs. If you chose to purchase your own copy of STATA, you qualify for a substantial discount through the University's GradPlan. Information available at: <http://www.stata.com/order/new/edu/gradplans/studying/>

Please note that Small Stata is insufficient for this course; you should purchase STATA/IC instead. Current price for Stata/IC license for 6 months is \$45.

Hardware:

You will need a USB memory device to store copies of data and log files from our work in class.

Course Requirements

Attendance: Attendance is absolutely crucial to success in this class. In order to reinforce the importance of attendance, it will be factored into final grades. Attendance will be taken regularly and any student missing more than 20% (3 weeks of class, or 6 class meetings) of the course's scheduled classes will receive a failing grade. To be clear, these absences are intended to cover both valid (illness, car breaking down) and invalid reasons for missing class. Excused absences will therefore not be granted. You reserve the right to record an absence for students who spend substantial class time on class activities.

Homework: Students will regularly work on ungraded exercises during class time to practice course material. Graded homework assignments are given. Students should, however, plan on taking time outside of class each week to: a) Review log file, class notes, and class exercises from that week's classes. b) Use STATA and the data files to independently perform the analysis conducted in class in order to review STATA commands, interpretation of output, and key concepts from class lecture and c) Use STATA and the data files to perform additional data analysis beyond class examples to further test mastery of course content.

Exams: Two midterms and a final exam. The first midterm is scheduled for Tues, Feb 19. The second midterm is scheduled for Thurs, Mar 21. The final is scheduled for Sat, May 4 1:30-4.

Research Paper: The goal of this course is to train you to perform and interpret original analyses of economic data. To that end, you will complete one independent research project, using the skills taught in this course. You will write a paper (roughly 8 pages, double-spaced, including figures and tables) on a topic of interest to you, focusing on original analysis of relevant data. Some course time will be spent teaching you how to download and analyze U.S. Census data, and many students will formulate a research question that can be investigated using Census data. Students are, however, free to pursue other data sources on topics of interest. I will hold individual meetings the week of April 9 to make sure that you have found an appropriate topic and data set and provide some individual guidance (class will be cancelled during that week to allow for individual meetings during class time). The research paper is due, in both electronic and hard copy, on the last day of classes, Thursday, May 2, by 5 pm.

Grades

Grades will be based on:

20% Midterm 1 (Tues Feb 19)

20% Midterm 2 (Thurs Mar 21)

30% Final Research Project (Due Thurs May 2, 5 pm)

30% Final Exam (Sat, May 4, 1:30)

Letter grade standards: I evaluate work in this course from the perspective of an employer. An A on an exam or on the final project means that an employer would consider the student a desirable hire. Standards for other letter grades are based on degree of departure from this standard.

Course Specific Policies

Material from a Missed Class If you miss class, you are responsible for obtaining the material you missed. You should arrange to obtain log file and slides from a classmate and work through these on your own to review the missed material. Ungraded in-class exercises are posted on the course website for students who miss class to complete on their own. You are always welcome to ask questions in office hours once you have reviewed the notes and completed any missed in-class exercises on your own.

Missed Exams Make-up exams for the midterms will not be given. Midterm exam absences will only be excused for compelling circumstances (generally family emergencies or documented illness), in which case the other course material will be regraded. Students anticipating conflict with an exam date due to religious observance or scheduling (3 or more exams on the same day) should bring these to my attention within the first 3 weeks of class.

Class Disruptions Computers should not be used for non-class activities during class time and cell phones should be stored away during class time.

Academic Integrity: All students are responsible for knowing and adhering to the academic integrity policy of the University of Colorado at Boulder (www.colorado.edu/policies/honor.html and www.colorado.edu/academics/honorcode). All incidents of academic misconduct will be reported to the Honor Code Council. I particularly encourage students to avoid plagiarism (portrayal of another's work or ideas as one's own) and therefore to conscientiously identify and cite all ideas or language borrowed from any other work.

How Can I Do Better?

I often have students show up in office hours to discuss the fact that they are dissatisfied with their performance in the class so far and ask advice about how to improve. My answer is always the same. So I now put the advice here so that everyone has it from the first day of class!

Material in this class is advanced and highly cumulative. Material must be practiced multiple times to master. Mastering one week's material is crucial to understanding the next week's material.

0) Attend every day Put your cell phone away. Only have class material open on your computer.

1) Mentally engage in class. Material is not learned by simply typing in commands and writing down what is written on the board without thinking. Are you concentrating on following and understanding the material? Can you answer the questions I am asking in class?

2) Review previous class material before each class. Course material is highly cumulative. You will learn much better in class if you have already reviewed the material.

Course Schedule

Week 1 (Jan 15, Jan 17): Introduction and Getting Started in STATA

Week 2 (Jan 22, Jan 24): Summarizing Continuous Data

Week 3 (Jan 29, Feb 31): Categorical Data

Week 4 (Feb 5, Feb 7): Hypothesis Testing

Week 5 (Feb 12, Feb 14): Simple Regression

Week 6: Tues, Feb 19^{1st} Midterm
Feb 21: Nonlinear Models

Week 7 (Feb 26, Feb 28): Categorical Variables, Multiple Regression

Week 8 (Mar 5, Mar 7) Interaction Models

Week 9 (Mar 12, Mar 14) Omitted Variable Bias Standard errors and Multicollinearity

Week 10 (Mar 19, Mar 21) Thurs, Mar 21- 2nd Midterm

Week 11: Spring Break

Week 12 (Apr 2, Apr 4): IPUMS Tutorial (How to do the project)

Week 13 (Apr 9, Apr 11): Individual meetings during class to discuss final projects

Week 14 (Apr 16, Apr 18): Advanced topics: Logit Model

Week 15 (Apr 23, Apr 25): Advanced Topics: Fixed Effects Models

Week 16 (Apr 30, May 2) Advanced Topics: Difference-in-Differences Models

Thurs, May 2, 5 pm, Final Papers Due

Sat, May 4, 1:30, Final Exam

University Policies

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 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.

Classroom Behavior: Students and faculty each have responsibility for maintaining a behavior/CS1 cs

Religious Holidays Campus policy regarding religious observances requires that faculty make every effort to deal reasonably and fairly with students who, because of religious obligations, have conflicts with scheduled exams, assignments or required attendance. In this case, absences for religious observance fall within the course policy of six allowed absences for the semester. Students with religious observance conflicts with scheduled midterm exams will be excused from the midterm and remaining course assignments will be reweighted, consistent with the excused midterm exam policy for the course.