

## Economics 4848-002 Applied Economics Fall 2016

Professor: Jennifer Klein

Office: ECON 06A

Office Hours: M 12:45-1:45pm, W 3-4pm or by appointment/email

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### Course Description

Applied Economics provides an overview of econometric techniques commonly used in applied research in microeconomics. Methods and topics covered in this course will help students develop a deeper understanding of econometrics as well as learn to use STATA, a statistical software package commonly used in economics. Learning to use STATA will take a significant amount of time and effort but will be extremely valuable as it is much more powerful than what you can do in Excel, EViews, etc. Students will apply the econometric models using data from the US Census Bureau and the Bureau of Labor Statistics. In addition, students will be able to apply these skills to a research topic of their choosing.

### Prerequisite

This class requires previous completion of Economics 3818, Intro to Statistics, or the equivalent.

### Course Materials

There is no required text but you may find the following resources helpful:

Introductory Econometrics: A Modern Approach by Jeffrey M. Wooldridge

Using Econometrics: A Practical Guide by A.H. Studenmund

Prof. Brian Cadena's Econ 4848 Course Pack (available for purchase from the bookstore)

**Software:** We will be learning to use a statistical software program called STATA in class. For all assignments, projects, and exams you will be required to complete all analysis using STATA. Students are not required to purchase their own copies of STATA, as it is available in the computer lab in the basement of the economics building. Note that the economics building is closed on weekends, but remains open until 10pm on weekdays. You can find a list of other campus labs with STATA at: <http://webdata.colorado.edu/labs/softwaresearch/>

If you choose to purchase your own copy of STATA, it will allow you to work on assignments and your research project outside the computer labs. Students can receive a discount on the software through the University's GradPlan. Information is available at: <http://www.stata.com/order/new/edu/gradplans/student-pricing/> Please note that Small Stata (which only allows for 1,200 observations) will not be sufficient for this course. I would suggest Stata/IC license which is \$75 for 6 months.

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



a rough outline of the project and findings on Nov. 18. Individual meetings will be scheduled the week of Nov. 7th.

In addition, each student/group will give a presentation the last week of classes (Dec. 5-9) discussing their research question, data, methods, and results.

## Additional Policies

**Attendance:** Attendance is an absolute necessity in this course. It is where I can help guide you in learning STATA and completing a good research project, and you can get feedback on where improvement is needed. Students are expected to be in attendance **on time** for every class, as it may be difficult for you to make up the material and fully understand programming in STATA otherwise. It is your responsibility to obtain any material/notes from a class you miss from one of your classmates. Attendance will be recorded every class period and any student missing more than 9 class periods will automatically fail the course. These absences up to 9 are intended to cover any manner of reasons why you might need to miss class, valid or otherwise. These penalties are non-negotiable. Those arriving late, leaving before class is dismissed, spending significant time on non-class activities will also be counted as absent.

**Honor Code:** 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](http://www.colorado.edu/policies/honor.html) and [www.colorado.edu/academics/honorcode/](http://www.colorado.edu/academics/honorcode/) ). All incidents of academic misconduct will be reported to the Honor Code Council and will result in a failing grade for the course. In particular, since students will be completing a research project be careful 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.

**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 differences of race, color, culture, religion, creed, politics, veteran's status, sexual orientation, gender, gender identity and gender expression, age, disability, and nationalities. 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

## Tentative Class Schedule

Assignments are due at the beginning of class unless otherwise noted.

Week	Content	Assignments
Week 1	Aug. 22-Aug. 26: Course Information Conducting Economic Research, types of data Introduction to STATA	
Week 2	Aug. 29-Sept. 2: Introduction to STATA Creating Variables, Exploring Continuous Data	
Week 3	Sept. 5-Sept. 9: Categorical Data Data management, Error checking	Homework 1 Due 9/5
Week 4	Sept. 12-Sept. 16: Hypothesis Testing Distribution of $\hat{\beta}$	Homework 2 Due 9/12
Week 5		