

## Economics 4848 Applied Econometrics Summer Session B 2017

Professor J. Klein  
Office: ECON 04A  
Office Hours: M, T 11:00am-1:00pm, Th 11:00-noon or by appointment/email  
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### Course Description

Applied Econometrics 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.

Typically each week we will discuss the theory for the current topic and then spend some time working with data to apply the theory in STATA. This data analysis that we do in class will be similar to your assignments, however the theory portion will also be covered on exams.

### 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. If you choose not to buy Stata, please plan your work time accordingly. No late assignments will be accepted because you could not access the computer lab on the weekend. Stata is also available in the Benson computer lab.

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.

## Grade Breakdown

Grades for this course will be based on the following criteria:

Assignments (209/ymen o3)

Students with documented disabilities who may need academic accommodations should speak with me during first three weeks of the class. Also contact the Disability Services Office, Willard 322 (phone 303-492-8671).

**Data Project and Presentation (20%):** Students may work alone or with **one** other student on a data analysis project applying what you've learned in the course. Assignments are due at 8:00pm unless otherwise noted. Your written project is due by **8:00pm on Sunday, August 13th**. You should start thinking about your research topic as soon as possible at the beginning of the semester. Your project should pose a testable economic question that can be answered using one of the techniques we discuss in applied econometrics. A sample outline of what to include

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

## Tentative Class Schedule

Week	Content	Assignments
Week 1	July 11: Course Information, ACS/CPS Introduction July 12: Statistics and Sampling July 13: Introduction to STATA, Creating Variables July 14: Creating Variables, Data management, Error checking	Homework 1 Due 7/14
Week 2	July 17: Conducting Economic Research, Data sources July 18: Exploring Continuous Data, Categorical Data July 19: Bivariate Regression, Hypothesis Testing July 20: Analyzing your Regression, Classical Assumptions and Violations July 21: Simple Multivariate Regression, IPUMS Tutorial	