

## **Economics 4848- Applied Econometrics Spring 2016, MWF 9:00-9:50, Humanities 1B45**

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### **Course Materials**

On Desire2Learn

mail.

### **Course Prerequisite**

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

### **Course Description**

The goal of this course is to teach you how to analyze data in order to obtain meaningful inferences, in other words, to use data to say something informative about interesting questions. Because these are skills that are best learned by doing, this requires that students develop facility with a statistical software package. In this course, we will use STATA, a package particularly well suited for empirical economics analysis. While students will exert a fair amount of energy mastering STATA in order to follow the lectures and complete the assignments in this course, it is important to remember that learning STATA commands is only a means to an end, and that the key focus of this course is develop skills in econometric analysis and interpretation.

### **Course Materials**

#### *Textbook:*

A course pack developed by Prof. Brian Cadena serves as an informal textbook. It is available in electronic form on the course website.

#### *Software:*

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

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 is available at: <http://www.stata.com/order/new/edu/gradplans/student-pricing/>

Please note that **Small Stata is insufficient for this course**. Current price for Stata/IC license for 6 months is \$75.

*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 re-enforce 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 9 class meetings) of**

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. I reserve the right to record an absence for





## Course Schedule

Week 1 (Jan 11-15): Introduction and Getting Started in STATA

Week 2 (Jan 20-22): Summarizing Continuous Data

Week 3 (Jan 25-29): Categorical Data

Week 4 (Feb 1-5): Hypothesis Testing

Week 5 (Feb 8-12): Simple Regression

Week 6: (Feb 15-19) **Wed, Feb 17- 1<sup>st</sup> Midterm**  
Non-linear Models

Week 7 (Feb 22-26): Multiple Regression, Categorical Variables

Week 8 (Feb 29-Mar 4): Interaction Models

Week 9 (Mar 7-11): Omitted Variable Bias

Week 10 (Mar 15-18) Standard errors and Multicollinearity  
**Fri, March 18- 2<sup>nd</sup> Midterm**

Spring Break Mar 21-25

Week 11 (Mar 28-Apr 1): IPUMS Tutorial

Week 12 (Apr 4-8): Individual meetings during class time to discuss final projects

Week 13 (Apr 11-15): Advanced topics: Logit Model

Week 14 (Apr 18-22): Advanced Topics: Differences in Differences Models

Week 15 (Apr 25-29): Advanced Topics: Fixed-Effects Models

**Fri, April 29, 5 pm, Final Papers Due**

**Thurs, May 5, 4:30-7, Final Exam**