

Applied Statistics & Econometrics II  
Econ 8840  
Wednesday, 7:15-9:45pm  
Aderhold Learning Center 203  
Spring Semester 2018  
CRN:15829

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Instructor: Dr. Rachana Bhatt  
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Website: iCollege  
Office Hours: **Wednesday**, 6:00-7:00pm and by appointment

Course Description & Objectives

This course will continue to develop the knowledge and skills acquired in Economics 8740. The course will focus on data management and selected topics in microeconometrics. This course will cover how to manage data, including challenges presented by large data sets and complex data structures. You will learn about working with cross-sectional data, longitudinal data, panel data, clustered samples, and issues related to missing data and imputations. The course will cover econometric techniques such as discrete choice models, instrumental variables models, fixed effects models, and program evaluation methods. These techniques will be applied to various topics, such as public finance, health, education, labor, and economic development.

Textbook

Book: Introductory Econometrics: A Modern Approach (4<sup>th</sup> or 5<sup>th</sup> edition, South-Western) by Jeffrey M. Wooldridge  
Website: [academic.cengage.com/economics/Wooldridge](http://academic.cengage.com/economics/Wooldridge)  
Note: All chapters and homework assignments refer to the 4<sup>th</sup> edition of the book.

Lectures Outline:

Homework:

Some components of homework assignments will require using data and the statistical software STATA. Data sets necessary for homework can be found on the textbook's website, but will also be posted on the class Desire2Learn site for download. You must work in groups of two for the homework assignments. Turn in only one homework assignment (with both students' names) per group. Please append your "log" file to any assignments that involve STATA.

Week 1.....	Introduction, Chapter 9
Week 2.....	Chapter 9
Week 3.....	Chapter 10
Week 4.....	Chapter 10
Week 5.....	Exam 1 (Background, Ch. 9, 10)
Week 6.....	Chapter 13
Week 7.....	Chapter 13, Lab
Week 8.....	Chapter 14
Week 9.....	Chapter 14
Week 10.....	Spring Break-No Class
Week 11.....	Exam 2 (Ch. 13, 14)
Week 12.....	Chapter 15, Lab

Week 13..... Chapter 15  
Week 14..... Chapter 17  
Week 15.....Exam 3 (Ch. 15, 17)

Important Dates:

Homework

HW 1 .....Wednesday, January 17<sup>th</sup>, 2018  
HW 2 .....Wednesday, January 24<sup>th</sup>, 2018  
HW 3 .....Friday, February 2<sup>nd</sup>, 2018 (via email by 5pm)  
HW 4 .....Wednesday, February 28<sup>th</sup>, 2018  
HW 5 .....Wednesday, March 14<sup>th</sup>, 2018 (via email by 5pm, Spring Break Week)  
HW 6 .....Friday, April 6<sup>th</sup>, 2018 (via email by 5pm)  
HW 7 .....Friday, April 13<sup>th</sup>, 2018 (via email by 5pm)

Exams

Exam 1..... Wednesday, February 7<sup>th</sup>, 2018  
Exam 2..... Wednesday, March 21<sup>st</sup>, 2018  
Exam 3..... Wednesday, April 18<sup>th</sup>, 2018

Attendance:

Class attendance is highly recommended. Material for exams and the homework will come from both class lectures as well as the book. The only acceptable excuses for missing a test are medical reasons or family emergencies, and an official doctor's note or excuse must be provided. If you have legitimate excuse, a make-up exam will be issued soon after the date of the original exam. Any issues should be discussed with me before the actual exam takes place.

Grading Policy:

Homework is due at the beginning of the class period on the appropriate due date. Late homework will not be accepted. Homeworks, class participation, and exams will count for the following percentages of your final grade:

Homework (7).....20%  
Exam 1.....25%  
Exam 2.....25%  
Exam 3.....25%  
Class Participation.....5%

### Course Software:

There are several statistical packages for analyzing data. In this course, we will be using STATA. This software is available for use in the AYSPS building Room 720, 7<sup>th</sup> floor. Please note that access to the AYSPS building and computer lab are restricted to the following days and hours: Monday-Friday, 7:00 AM to 7:00 PM. The doors of the AYSPS building lock at 7:00 PM and you will not have access after that. However, if you are already in the building you can continue to work. If you leave any time after 7:00 PM you will not be able to re-enter. In order to enter the computer lab, you MUST have your GSU Panther card for the door swipe.

There are a number of learning resources online for STATA which may be helpful:

UCLA Academic Technology Services:

<http://www.ats.ucla.edu/stat/stata/default.htm>

>STATA>Starter Kit>Learning Modules

Carolina Population Center:

[http://www.cpc.unc.edu/research/tools/data\\_analysis/statatutorial](http://www.cpc.unc.edu/research/tools/data_analysis/statatutorial)

Data and Statistical Services, Princeton University:

[http://dss1.princeton.edu/online\\_help/stats\\_packages/stata/stata.htm](http://dss1.princeton.edu/online_help/stats_packages/stata/stata.htm)

Other:

<http://www.stata.com/links/resources1.html>

### Additional Information:

All students are responsible for knowing GSU's Policy on Academic Honesty as published in On Campus: The Undergraduate Co-Curricular Affairs Handbook. If you require special accommodations for exams, you must provide documentation from GSU Disability Services and make arrangements with me prior to the exam dates.

### Prerequisites:

Economics 2105, 2106, a course in introductory statistics, and Economics 8740.

### Note:

The course syllabus provides a general plan for the course; deviations may be necessary.