

UCSC Department of Economics
Summer 2018

ECON 113: Introduction to Econometrics

Instructor

Daniel Oliver (damolive@ucsc.edu) Office Hours: Mon/Tue 11:00 AM - 12:00 PM (E2-405F)

Lectures

Mon/Wed 1:00 PM - 4:30 PM Physical Sciences 114

Teaching Assistant

Zhaoqi Wang - zwang153@ucsc.edu

Sections

Thursday 11:45-12:50 Soc Sci 1 #153

Thursday 1:10-2:15 Soc Sci 1 #153

Exam Dates:

Midterm: Monday, August 13th 1:00 PM – 2:15 PM

Final: Wednesday, August 29th : 1:00 PM – 4:30 PM

If you have a conflict then you must contact the instructor during the first week of class to discuss it.

Course Description

This course covers methods for analyzing economic data, testing economic hypotheses, and measuring economic relationships. Regression analysis is the main empirical method, and basic statistical and probability theory is included. Students gain hands-on computer experience with Stata.

Prerequisites

Econ 11B: Mathematical Methods for Economists, AMS 5: Statistics

Recommended Textbook

Primary: *Introductory Econometrics: A Modern Approach* [4th or 5th edition] by Jeffrey M. Wooldridge

Secondary: *Introduction to Econometrics* by James H. Stock and Mark W. Watson

*Required Software

Stata IC is sufficient for this class (\$45 for a 6 month license, installed on 3 computers)

Stata GradPlan: <http://www.stata.com/order/new/edu/gradplans/student-pricing/>

Grades

Assignments: 10%, Quizzes: 20%, Participation: 5%, Midterm: 25%, Final: 40%

Assignments (10%): There will be 4 assignments during the quarter. They provide an opportunity to practice methods and develop intuition. You will also analyze real data using Stata. You must print and attach the STATA “do file” you used to generate your results. Assignments must be turned in at the start of class and late assignments are not accepted.

Quizzes (20%): There will be 5 quizzes. Quizzes are typically less difficult than the exams and cover material from the current and previous class.

Participation (5%): Articulating and communicating econometric concepts is crucial.

Midterms (25%): The midterm is worth 25% of your total grade for the course. You are responsible for mastering material covered by the lecture notes, section notes, assigned and assignments (including writing STATA code and interpreting the output). You will be expected to use what we have learned to solve new questions.

Final (40%): The final is worth 40% of your total grade for the course. A comprehensive exam covering all topics from the course.

Regrading:

Requests must be submitted within one week of an exam being returned. With the exception of cases of simple arithmetic mistakes (points added incorrectly), the exam is regraded from scratch and the regraded score may be higher or lower than the original. In practice, regrades rarely result in changes in the grade.

Academic Integrity

All work submitted for this class must be your own. Collaboration on assignments is encouraged, but the answers you submit must be your own and based on your own understanding. Copying answers or STATA code is a violation of university policy. For more information on academic integrity at UC Santa Cruz, please see the following link: https://www.ue.ucsc.edu/academic_misconduct

Course Reading

	Topic	Chapters
1	Introduction to econometrics	Wooldridge 1.1-1.2
2	Types of data	Wooldridge 1.3-1.4
3	Descriptive statistics	Wooldridge A.1-A.2, B.1, C.1-C.2
4	Simple linear regression	Wooldridge 2.1-2.4
5	Multivariate regression	Wooldridge 3.1-3.3
6	Hypothesis testing	Wooldridge 4.1-4.3
7	Binary variables	Wooldridge 7.1-7.7
8	Causality and endogeneity	Wooldridge 9.2, 9.4, 9.5
9	Differences-in-differences	Wooldridge 13.2-13.4
10	Fixed effects	Wooldridge 14.1
11	Instrumental variables	Wooldridge 15.1
12	Regression discontinuity	Supplemental

Course readings have been selected to correspond to the material covered in lecture. The textbook has many terrific examples to supplement those covered in lecture and very good practice problems at the end of each chapter.