ECONOMICS 469/569
INTRODUCTION TO ECONOMETRICS
COURSE OUTLINE

Department of Economics – Portland State University
Winter 2017
Version as of December 28, 2016

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Class Meeting: M-W 10:00 – 11:50pm
Class Location: 341 Neuberger Hall
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Office hours: T 1:00-3:00 or by Appointment

Course description

This course introduces the basic statistical methods used by economist for analyzing economic data and testing economic theories. The course is intended to provide a sound theoretical foundation of introductory-level econometrics while using real-world, applied examples to illustrate theoretical concepts. Particular attention will be given to regression analysis and the extensions that are important in the fields of economics, finance and accounting. In addition, this course is designed to teach students how to write an applied research paper. In particular, students will learn how to propose a research question, gather and organize and appropriate data set, apply regression analysis to the data set, and write up the results in a cohesive and informative manner.

Prerequisites

The pre-requisite for this course are ECON 201 and 202, MTH 251, and STAT 243 and 244. This course assumes background knowledge of algebra, probability theory, statistical inference, distribution theory, hypothesis testing, introductory calculus (slopes, derivatives, maximization, and minimization) and matrix algebra. In addition, some knowledge of economic theory will be useful for this course.

Textbooks

The textbooks for this course are available at Portland State University Bookstore.

Required
Gujarati, Damodar N. and Dawn Porter. 2010. *Basic Econometrics, 5th Edition*. New York, NY: McGraw-Hill.

Recommended
Acock, Alan C. 2014. *A Gentle Introduction to Stata, 4th Edition*. College Satiation, TX: Stata Press.

Angrist, Joshua D. and Jorn-Steffen Pishke. 2015. *Mastering Metrics*. Princeton, NJ: Princeton University Press (Recommended for Graduate Students)

The primary text for the course is Basic Econometrics, fifth edition (you can use older editions at your own discretion). Be advised that many section of this book are quite advanced and so you will not be expected to read all of the text. However, there are some sections of the text that will provide an excellent complement to the lecture material.

Grades

Grades for the course are based on performance on the problem sets, midterm exam, and a research paper. The distribution of points in the grading scheme is as shown below:

	points possible	
Midterm Exam	100	
Final Exam	150	
Homework	100	(25 points each)
Quiz	50	(12.5 points each)
Total	**400**	

Exams

The Mid-Term exam will be held on February 8th from 10:00 PM to 11:50PM. The final exam will be a comprehensive in-class exam. The Final exam will be given in class on March 15th from 10:00 AM to 11:50 PM. There is no make-up exam for the Mid-term or the Final exam. **You must bring a PSU student identification card, a non-programmable calculator (no phones), and a number 2 pencil to the mid-terms and final exam.** You must present a valid PSU student ID and write your PSU student ID number on your exam to receive full credit.

Problem sets

The problem sets will have two types of questions. The first will be exam-type questions that ask you to "prove" or "show" things or to respond to a written description of some empirical results. For the second type of question, you will be given data and asked to estimate an econometric model and then to interpret the estimates you obtain. In general, both generating and interpreting the estimates correctly are important, with interpretation weighing most heavily in determining the grade for each problem.

Your write-ups for the problem sets should consist of two portions. The first portion is just the answers to the questions, with whatever text is required to explain them. The second portion, on separate pages, consists of a Stata log file (or equivalent from another program) that shows how you got the answers to the empirical questions. The log file must be clear and must include comments that will allow the grader to quickly see the command or commands leading to each

answer. It should not include everything you tried – just the final set of commands employed to get the answers.

Each problem set will be distributed in class the week before it is due and is to be handed in at the BEGINNING OF CLASS A WEEK LATER (Except for HW4 – will discuss later). No problem set will be accepted after class begins, no exceptions, no excuses, no kidding.

Quizzes

Unannounced quizzes may be taken directly from homework or examples in class. You must come prepared to every class meeting. A total of 5 unannounced quizzes – the top 4 scores will count for the final quiz grade. Missed quizzes cannot be made up. If the absence is excused, the quiz grade will not be included in the tabulation for your final grade.

Statistical software

I support and teach in Stata. Stata is a user friendly statistical package that allow you to conduct the analysis without prior programing experience (unlike R). You are welcome to use alternative software such as SAS, SPSS, TSP, R, S, or Shazam or other programs such as Eviews if you like however the homework assignments are expected to be completed in Stata. The Economics Department has a departmental computer lab with 10 Stata equipped computers. Stata may be available at other computer labs on campus that I am currently unaware of. Throughout the quarter, I will periodically have an hour of class dedicated as free time. This is an opportunity to use the lab to complete homework. Due to the lack of supply this may not provide enough time or opportunity to complete tasks. Please plan accordingly. Students may also purchase Stata. If you are interested in purchasing Stata, I would recommend Stata/IC which currently cost $75 for a six-month student license.

Students with disabilities

Students with documented learning disabilities or special needs, must contact me at least a week in advance of scheduled exams if use of the Testing Center's facilities is required. It is the student's responsibility to arrange for accommodations through the Testing Center and provide me with the appropriate documentation in the beginning of the semester. Also see http://www.pdx.edu/drc for more information.

Academic misconduct

The Student Conduct Code, which applies to all students, prohibits all forms of academic cheating, fraud, and dishonesty. These acts include, but are not limited to, plagiarism, buying and selling of course assignments and research papers, performing academic assignment (including text and examinations) for other persons, unauthorized disclosure and receipt of academic information, and other practices commonly understood to academically dishonor. The code of conduct also describes standards of behavior for all student members of the campus community. Violation of the SCC may lead to disciplinary action. Students may obtain copies of the Student Conduct Code

by contacting the campus judicial officer at 503-725-4422, or by visiting room 433 Smith Memorial Student Union.