

EC 320: Introduction to Econometrics

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Class Hours: XXX

Class Room: XXX

Course Description

This is the first course in the introductory econometrics sequence. Econometrics is the science, and art, of using evidence - data - to test economic theories, predict future events, or make recommendations for social policies. The primary goals of this course are to provide students with the knowledge and tools to conduct empirical research and to critically evaluate statistical analyses by researchers and in the media. A secondary goal is to show students how prevalent randomness and chance are in the world, and to teach useful ways to interpret events in light of this uncertainty.

Textbook

Dougherty, Christopher, Introduction to Econometrics, Oxford: University Press (I will assign homework from the 5th edition).

Prerequisites

Math 242 (Calculus) and Math 243 (Probability and Statistics)

Grading Policy

Final grades will be based on 8 homework assignments, one midterm, a final, and possibly quizzes. Any absences must be excused prior to the time that assignments are due. The final is given only at its stated time. Your final course grade will be determined as follows:

- 20% of your grade will be determined by homework and quizzes.
- 40% of your grade will be determined by a midterm exam.
- 40% of your grade will be determined by a final exam.

Homework

There will be eight homework assignments in this class. Of these, your best 7 scores will count toward your final grade. Each assignment will be due at the beginning of class on the day it is assigned. Late homework will be accepted until a solution key has been posted.

Quizzes

I reserve the right to give unannounced in class quizzes. If given, they will be comprised of between five and ten multiple choice questions designed to show you are keeping up with the assigned materials. Those not attending class on days where a quiz is given will receive a score of 0.

Tests

There will be one midterm and one final in this class. In the case of a missed midterm due to unanticipated emergency situations, the student will be allowed to put the weight of the missed exam on the final exam, provided notification is received as soon as possible and there is verification of the emergency. Do not take this class if you already know you cannot make one of the scheduled exams.

Labs

There is a lab associated with this class. Those signed up for the lab will have use of the computer lab during specific time periods. The lab will consist of instruction (topics, homework review, grading, etc.) and computing tips necessary to complete homework assignments. Throughout the term, a free and open source statistical programming language called R will be used. You can download the language from [here](#). I also recommend using [R-Studio](#) as your development interface. It is available in the SSIL lab (McKenzie Hall 4th Floor). Many of the homework assignments will require the use of R. For more information, contact the SSIL lab. The SSIL lab also has a wide variety of other programs available.

Academic Dishonesty Policy

Academic dishonesty (from plagiarizing work to cheating on exams) will not be tolerated. Please acquaint yourself with the Student Conduct Code, which is published in the Schedule of Classes each term.

Students with Disabilities

If you have a documented disability and anticipate needing accommodations in this course, please make arrangements with me during the first week of the term. Please request that the counselor for students with disabilities (164 Oregon Hall) send me a letter verifying your disability.

Class Schedule

The following is a tentative schedule of lectures. The schedule should be viewed as tentative and may be subject to change throughout the term.

Week 01, 03/28 - 04/01: Introduction and Review

Week 02, 04/04 - 04/08: Review

Week 03, 04/11 - 04/15: Simple Regression Analysis

Week 04, 04/18 - 04/22: Properties of Coefficients

Week 05, 04/25 - 04/29: Hypothesis Testing

Week 06, 05/02 - 05/06: Multiple Regression Analysis

Week 07, 05/09 - 05/13: Multicollinearity

Week 08, 05/16 - 05/20: Nonlinearity and Transformation

Week 09, 05/23 - 05/27: Dummy Variables

Week 10, 05/30 - 06/03: Model Specification