Syllabus for AED/ECON 4002.01

Econometric Applications in Agribusiness and Applied Economics

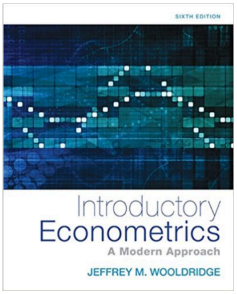
Fall 2018

Lecture: Tuesday and Thursdays, 11:10am-12:30pm, Hopkins Hall 250
Labs: Fridays 11:30am-12:25pm or 12:40pm-1:35pm, Ag Admin 005

Professor: Leah Bevis, Assistant Professor, AEDE (bevis16@osu.edu)

Graduate TA: Julio Acuna Garcia (acuna.19@buckeyemail.osu.edu)

Office hours: Tuesdays 12:45-1:45pm and 4pm-5pm, in 329 Agriculture Admin Bldg



Textbook: There is no *required* textbook for this class. But if you wish to consult a textbook as we move through topics in lecture, and especially if you wish to study this material in more detail and/or to pursue more advanced concepts, I would recommend "Introductory Econometrics: A Modern Approach" by Jeffrey Wooldridge.

Lecture Slides: I try to will make all lecture slides available on Carmen prior to the beginning of each class, so that if you wish to print these slides directly before class, you can. Some of you may find that this helps with note-taking. However, I strongly advise you not to over-rely on these slides; they will not be a comprehensive collection of all things taught, and there will be many concepts that later show up in problem sets and exams that I merely discuss, or that I may write on the board, but that I may not explicitly include in the slides. You are responsible for knowing all material taught in class, whether it is in the slides or not.

Exams: Two exams will be given. The midterm will be a closed book, written exam that takes place during Friday lab. It will focus on theoretical concepts as well as some data analysis concepts. The final will involve analyzing a dataset in Stata, and answering questions about relationships in the data through your analysis results. Theory will play into the analysis that you do, but there will be no explicit questions about theory. The final will take place on Monday, April 30, 10-11:45am.

Problem Sets: You will complete 6 problem sets of varying length. These problem sets will all involve analyzing a dataset (the same dataset for the whole class) in Stata, in order to answer questions about relationships in the data. You will always be required to turn in both your .do file (the Stata script with your code) and a word or pdf document with the answers to the problem set questions. Answers will generally include both (i) results estimated in Stata, and (ii) your thoughts on those results. Both the .do file and the answer document will be uploaded via Carmen, which will not accept uploads after the deadline.

Teamwork: You are welcome to work together in groups on your problem sets. However, you must each turn in your own .do files and answer documents.

Late Problem Sets: Because this is a large class, late problem sets will not be accepted. If you have a very, very good excuse, and email Julio in advance of the problem set deadline, he may allow you to email a problem set to him a day or two late. However, this will only be allowed under extenuating circumstances.

Grades: Problem sets collectively 30%, Midterm 20%, Final 50%

Regrades: If you believe that an error has been made in grading your problem set or exam, you must resubmit your graded problem set to Julio with a very clear, logically laid out, 1 or 2 paragraph printed document explaining the error that you think was made. (One or 2 sentences will not be accepted.) If Julio and you disagree about the correct grade, I will regrade the entire problem set or exam myself, and produce a final grade that may not be appealed, potentially higher or lower than the original.

Labs: Julio will teach lab sections, which will be used for (a) concept review, (b) general help with Stata, and (c) explicit help with the problem sets.

Subjects Covered: Part 1 of this course will begin with a review of statistical concepts and some basics on multivariate relationships in data. We will then cover both the theory and the intuition behind univariate and multivariate regression. (I will talk a bit about analysis in Stata during lecture, but Julio will give much more Stata help during labs.) We will conclude Part 1 with a section on hypothesis testing. Part 2 will delve into basic OLS regression more deeply, covering model specification, the implications of variable correlation and omitted variables, dummy variables and fixed effects. Part 3 will examine extension of the OLS model, covering binary choice models and the implications of heteroscedasticity, and will briefly overview serial correlation and time trends in data as well as models focused on prediction rather than explanation of internal variation.