Introduction to Econometrics
Economics 381, Fall 2012
TR 2:10 – 3:25pm, HBB 534

Professor:
Christian A. Vossler
Department of Economics
527C Stokely Management Center
Phone: 974-1699
E-mail: cvossler@utk.edu
Office Hours: Tuesdays, 3:45-5:15pm and Wednesdays, 9:00-10:30am, or by appointment.

Course Overview: Introductory probability, statistics, and data analysis from an economic perspective, with emphasis on skills related to gathering, managing, processing, presenting, and interpreting economic data. The course utilizes Stata statistical software for homework assignments. Our main focus will be the classical linear regression model and its common extensions. We will cover models for cross-section, panel and time-series data.

Prerequisites: The prerequisites for this class are Economics 201 and Statistics 201. This course is not recommended for those who did not receive a C or better in Statistics 201.


Required Software: You must have access to the Stata statistical software package. The primary method for accessing Stata is online, through a server run by the Statistical Consulting Center (https://apps.utk.edu). Problems with accessing Stata through the server will not constitute a valid reason for incompletion of assignments. Otherwise, if you wish to have direct access to Stata on your computer you can purchase a student license. For the purpose of this course, a six-month student license for “Small Stata” will be sufficient ($32). A link to the Stata website and purchase instructions are given on our blackboard course management site (under “Web Site Links”).

Course Requirements:

Attendance, 5% of course grade. Econometrics is a synthesis of economic theory, economic intuition, and statistics. Most find the study of econometrics rather challenging. As such, do not plan to attend class sporadically and/or fall behind in the readings and expect to do well through “cramming”. For your benefit as well as my own, I will take attendance during each class meeting. Besides simply attending, you should come to class prepared to participate in discussion. Being prepared means having read the relevant chapter before we discuss it in class.

Problem Sets, 20% of course grade. There will be four problem sets. The problem sets will include conceptual questions as well as involve estimation and statistical testing using Stata. Collaboration with your colleagues is encouraged, although final write-up must be your own. I will indeed assign scores of zero in cases where two or more students turn in (nearly) identical work.
Research Paper, 25% of course grade. A very important component of this class is the research paper, for which you will need to gather and clean a (credible) data set of your choosing to use for an empirical analysis. You will formulate interesting hypotheses, use appropriate econometrics to investigate these hypotheses, and then formally write up your results. My goal is for everyone to have a polished paper that they can be proud of. In order to facilitate this, the paper will evolve in three stages. First, you will submit a one to two-page proposal outlining your paper topic. This proposal will cite three academic papers that are relevant to your topic as well as identify data sources. Second, roughly two-thirds into the semester you will submit a draft paper, which I will provide feedback on. Third, you will produce a polished gem, the final paper, which is due on December 10th. You must get prior approval from me if you plan to submit your paper as part of the requirements for another course.

Exams, 50% of course grade. There will be three exams of equal length, with each exam covering roughly one-third of the course material. The third exam will take place on the University-scheduled final exam period for this course (December 6th at 2:30pm). Make-up exams are entirely at my discretion and are generally available only for students with direct UT exam conflicts or written medical excuses. You must make arrangements with me in advance of the scheduled exam, or will receive a score of zero.

Late Assignments: It is very difficult for me to assess the credibility of excuses made for not completing an assignment on time. As a compromise, I provide some flexibility. I will allow everyone a one-class grace period for one assignment. Aside from this, I will deduct 15 percentage points per day (including weekend days) for late assignments. The exception to this is the final paper, which must be turned in by the due date for you to receive credit.

Grade Adjustments & Extra Credit: (a) Exams. There will be an opportunity for extra credit on each exam. (b) Research Paper. I will award extra credit on the final paper for exemplary and/or advanced work. (c) Curve. I reserve the right to implement a curve, if necessary, to achieve a more reasonable distribution of grades. I have only done this on a few occasions, so do not rely on a curve to save you.

Grading Scale: I will use the following scale to assign final course grades: 92 to 100% is an A; 90 to 92% is an A-; 87 to 90% is a B+; 82 to 87% is a B; 80 to 82% is a B-; 77 to 80% is a C+; 70 to 77% is a C; 65 to 70% is a C-; 60 to 65% is a D+; 50 to 60% is a D; and less than 50% is an F.

Students with Disabilities: If you have a documented disability and need special accommodations, please come see me as soon as possible. Special accommodations will be handled discreetly.

Academic Dishonesty: With the exception of collaboration on problem sets, any work submitted will be your own. I reserve the right to take appropriate actions, as mandated by University policies, in the event of suspected cheating or plagiarism.

Course Website: This course will utilize the “blackboard” online course management system (https://blackboard.utk.edu/). I will post the course syllabus, handouts, problem sets and supplementary reading materials, as well as post grades throughout the semester. Please check the website for important announcements.
Important Dates:
Problem Set 1 due Thursday, September 6th
Problem Set 2 due Thursday, September 20th
Exam 1 – Thursday, September 27th
Research proposal due Tuesday, October 9th
Problem Set 3 due Thursday, October 25th
Exam 2 – Thursday, November 1st
Draft paper due Tuesday, November 13th
Problem Set 4 due Thursday, November 29th
Exam 3 – Thursday, December 6th, 2:30-4:30pm
Final paper due Monday, December 10th

Course Outline: Lectures will largely follow the presentation in the book. A basic outline is given below. On the course web site, under “Course Schedule”, you will find a log of what was (or will likely be) covered on a lecture-by-lecture basis – this information is to help you prepare for class.

I. Linear Regression Analysis
    Chapter 1
    Chapter 2
    Chapter 4
    Handouts: Getting familiar with Stata; Deriving the ordinary least squares estimator

II. Hypothesis Testing
    Chapter 5 (including the Appendix)
    Handouts: Understanding regression model output from Stata; Hypothesis test examples

III. Research Basics
    Chapter 3
    Handouts: Research paper handout

IV. Model Specification and Specification Testing
    Chapter 6
    Chapter 7
    Chapter 8
    Handouts: Functional Form and Model Interpretation; Functional Form Examples

V. Common Econometric Issues I: Serial Correlation & Heteroskedasticity
    Chapter 9
    Chapter 10
    Chapter 13 Section 13.1 only
    Handouts: Linear Probability Model Example

VI. Common Econometric Issues II: Panel Data Models & Simultaneity
    Chapter 16 exclude 16.1
    Chapter 14
    Handout: Panel data structure; Panel data model selection; Instrumental Variables Example