Economics 420 Econometrics
Fall 2009

Instructor: Steven B. Caudill
Prerequisites: Calculus (Math 115 or Math 121), Statistics (Econ 290, Math 111)
Classroom: 035 Barret Library
Classes: TuTh 2:00-3:15
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Office Hours: M-F 10:00 to 11:00 and by appointment

Course Objective: Economics is the study of relationships among variables. Econometrics is the study of estimating these relationships, testing economic theories, and evaluating and implementing government and business policy. Students are expected to (1) develop an understanding of the single and multivariate linear regression method of estimation--applied to both cross-sectional and time-series data, (2) make inferences and test economic theories based on real-world data and (3) learn and implement the methods for addressing heteroskedasticity, autocorrelation, multicollinearity. I expect that at the end of this course you will be able to read and interpret scholarly Economics journals. Furthermore, you will have the tools to design and complete a research project for your senior seminar.


Exams: Exam #1 Thursday, September 24th
Exam #2 Thursday, October 29th
Final Friday, December 11, 8:30

Homework: Homework will be assigned but not collected or graded. Homework solutions will be posted (exactly how and where will be determined later). Students are encouraged to work together on the homework problems.

Quizzes There will be daily quizzes (every day unless otherwise specified) over the previous lecture/homework assignment. Working the homework problems and attending class will likely help quiz performance. Students can drop their lowest three quiz scores and the “quiz grade” will be determined from the remainder. If a quiz is missed for any reason, a score of zero is assigned. There are no make-up quizzes.

Attendance Policy: While I do not require attendance, I do expect you to come to class on time and forbid you from leaving early without notifying me in advance. In any case you will need to attend to ensure success on the daily quizzes.
Grades:
The course grade consists of four components: a quiz score, your two semester exams scores, and a final exam score. Some of these exams may be take-home or have take-home components. Your course grade will be calculated two ways: 1) each of the four components counts 25% and 2) the final counts 40% and each of the other three components counts 20%. I will assign the higher of the two calculations as your course grade. I will round your grade to the nearest percentage and assign grades according to the scale below:

- A 93% and above
- A- 90%-92%
- B+ 87% to 89%
- B 83% to 86%
- B- 80% to 82%
- C+ 77% to 79%
- C 73% to 76%
- C- 70% to 72%
- D+ 67% to 69%
- D 63% to 66%
- D- 60% to 62%
- F below 60%

I do not give extra credit assignments.

Course Outline:
I Probability and Statistics (Appendix)
II Simple Regression Model (Ch 2)
III Multiple Regression Model (Ch 3)
IV Statistical Inference (Ch 4)
V Model Specification (Ch 6, 7, 9)
VI Heteroskedasticity (Ch 8)
VII Binary Dependent Variables (Ch 17)
VIII Carrying Out an Empirical Project (Ch 19)
IX Basic Time Series

Stata:
Stata 10 is available in all the labs, but If you would like a personal copy you can order it directly from Stata Corp:

http://www.stata.com/order/new/edu/gradplans/gp2-order_p1.html

I would recommend Intercooled Stata. Small Stata has too many limitations and Stata /SE is overkill. If you plan to go to graduate school, you may want to consider the perpetual license. Once again, Stata is available in the labs, so you do not have to buy the software if you don’t want.