Fundamentals of Stat/Econometrics (E570)

Fall 2009 Syllabus

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Class meeting: T 6:00-8:40 pm
at NU 217
Office Hours: TW 2:00-4:00 pm
and by appointment.

Course goals:
1. Use basic econometric skills to answer an economic question.
2. Learn to program in STATA.
3. Use data to conduct an econometric analysis of an economic question.
4. Write a clear description of your econometric analysis.


Software: STATA

Recommended texts: The following text and software will help you learn a lot more:


Also useful is:

Stata/SE 10 Availability:
1. Social Science Computing Classroom (SSCC) - 4 th floor Cavanaugh Hall (CA 436).
2. Economics graduate students room - 5 th floor Cavanaugh Hall (CA 534).
3. UITS-maintained Student Technology Labs - BS3000, BS3003, BS3005, IT131, SL070.

Small Stata for Windows (plus Getting Started manual); this is the least expensive possibility; there are more powerful (but also more expensive) options if interested. Purchase through IU’s Stat/Math Sales (smsale@indiana.edu). This is a version of STATA for your PC.
Grading:
Your final grade in the class will be determined by the following grading scale.
   Homework (30 percent)
   Midterm (30 percent)
   Final (40 percent)
However, you could also choose the following grading scale with a term paper:
   Homework (25 percent)
   Midterm (25 percent)
   Term paper (20 percent)
   Final (30 percent)

Homework:
Homework will be assigned on a regular schedule. Students are welcome to discuss the
homework with classmates. However, each student has to write his/her own answers. Do not just
copy others. Not mentioning it is not just a misconduct, it is not worth doing because eventually
you will have to solve the midterm and final exams on your own. No late homework will be
accepted.

Term paper:
For those who would like to write a term paper for an empirical project, please notify me before
November 1 and discuss with me about your plan.

Exams:
There will be one midterm exam and one final exam. No excuse other than extreme emergency
will be accepted for missing a midterm exam. If an emergency does arise, please email me before
the midterm exam to inform me of the problem. In the midterm exams, you will be permitted to
bring in a single sheet (two-sided, 8x11) of notes and a calculator; no textbooks, computers, cell
phones, iPAQs, iPods, etc. The final exam is accumulative and scheduled at 6:00-8:00pm on
Dec. 15 by the University.

Feedback:
I highly encourage you to provide me with feedback as we progress through the semester. Good
communication is essential to make sure the course runs as smoothly as possible. You can come
to my office hour, send emails to me, and leave feedback on my mailbox anonymously. I will
give bonus points for those who give me feedbacks based on weekly counts. (formula of bonus:
(your feedback counts/highest counts in the class)*5, Maximum will be 5 for who give me most
feedbacks in your final grade)

Academic Integrity:
Indiana University-Purdue University Indianapolis has a Code of Student Conduct, administered
by the office of the Dean of Students. This Code sets standards for academic integrity at IUPUI
for all undergraduate and graduate students. As a student you are responsible for upholding these
standards for this course. It is very important for you to be aware of the consequences of cheating,
fabrication, facilitation, and plagiarism.
Fall 2009 Schedule:

Week 1: Wool. 1. 2. Review of probability and statistics, simple regression model

Week 2: Wool. 2 Continued from previous week

Week 3: Lab Introduction to STATA (Sept. 15, at BS3003)

Week 4: Wool. 3 Multiple Regression Analysis: Estimation

Week 5: Wool. 4, 5 Multiple Regression Analysis: Inference
Hypothesis tests
Consistency, asymptotic normality, asymptotic efficiency

Week 6: Functional form, goodness-of-fit, prediction.

Week 7: Midterm (Covers Wooldridge through Week 5.)

Week 8: Wool. 6 Confidence intervals for predictions.

Week 9: Wool. 7 Multiple Regression with Qualitative Information
(Inform me whether you will like to write a term paper by Nov. 1)

Week 10: Wool. 8 Errors that are heteroskedastic

Week 11: Wool. 9 Functional form specification, RESET. Missing data,
Outliers. Omitted variables-proxy variables.

Week 12: Wool. 15 Instrumental variables estimation

Week 13: Wool. 17 Limited Dependent Variable Models and Sample Selection
Correction.

Week 14: Wool. 17 Continued from previous week.

Week 15: Reading Week

“Wool.” refers to the Wooldridge text