Economics 482A Fall 2007

Econometric Methods

Instructor:	Professor Richard Startz
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Office Hours:	Officially, Tuesday 10:00-10:50 More usefully: *knock anytime* (on the other hand, if no one shows at the beginning of the "official" time I tend to wander off.) Probably even more usefully given that Condon is out of the way, I'm amenable to coffee at the HUB after class.
Prerequisite:	Econ 300, Econ/Stat 311
Required texts:	Introductory Econometrics, 3rd ed, Jeffrey Wooldridge, (Thomson/South-Western, 2006)
Optional text	*EViews Illustrated*, Richard Startz, Quantitative Micro Software, 2007. (Copies of the first three chapters are available online at http://www.eviews.com/illustrated/Illustrated.html.
Web link for the course	http://www.econ.washington.edu/user/startz/482/482_frameset.html

Course Objectives:

Econometrics is the study of statistics as applied in economics. We are interested in answering three kinds of questions. How do we test a given scientific hypothesis? (Example: Are men paid more than women with equivalent levels of education?) How do we measure parameters of scientific interest? (Example: How much does one year of schooling raise wages?) What are good methods of forecasting the future? (Example: What will GDP be next year?) The basic tool we learn is multiple regression. We also explore a number of extensions. Class work is largely mathematics, intuition building, and examples of computer use. Homework emphasizes hands-on computer work.

Learning Goals

- **Be able to understand, interpret, and implement multiple regression and related statistical techniques**
- **Know the limitations and pitfalls of regression methods**
- **Be able write a focused explanation of the findings of a statistical investigation, clearly and concisely and "very well written."**

Note: THIS A *HARD* COURSE

Take a look at http://www.econ.washington.edu/user/startz/482/Learning Goals 482.pdf for more specific course goals

Coursework and grades:

There will be homework (20%) due at the *beginning of class* most days, and two in-class quizzes (20% each). Everyone must turn in their own homework, but collaboration is permitted. Collaboration on the computer assignments is encouraged! You also have to write a short (five page or so) paper. A one paragraph proposal is due in October. The first version (10% of grade) is due in November. The final version (30% of grade and improvement over the first version draft does figure into the grading) is due in December. (See the class web site for precise dates.) The paper has a tightly specified format – see the web site. The grade on the paper depends on both substance and presentation. *Regular class participation is the norm* and I reserve the right to retroactively include class participation in the grading scheme. Late homework isn't accepted, there aren't make-ups for the quizzes, no you can't have an extension on the paper.

More or less nothing is going to be handed out in class. You are responsible for checking the Web site regularly for homework, announcements, etc. You can find assignments and other links at
http://www.econ.washington.edu/user/startz/482/482_frameset.html

How to be Very Unhappy

In a word, *cheat*. All work you submit must be your *own, original work submitted solely for this course*. By submitting work you are pledging that both words and substance were wholly created by you. Any material from any other source must be properly cited. *So long as you cite all sources you aren't cheating.* For example, if you turn in a paper you bought on the internet and write on the top in big red letters "I bought this on the internet," then you're not cheating. (Course you won't get a very good grade, but at least you won't get in trouble.) A simple rule – when in doubt, cite.

You will receive a zero on the entire assignment if I find you cheating even the tiniest amount. And then I'll turn you in to the University for disciplinary action.

Reading the last two paragraphs probably (p=0.98) ticked you off. That's because you're honest and don't like to be lectured at. I don't blame you for being annoyed. Very few students (about 2 percent) cheat in this course. They'll get landed on with both feet. The rest of us will have a good time.

Computer Information: We use the econometrics program EViews, which is available on the CSSCR network in Condon.

Tentative Topic Schedule, see also posted lecture outlines

Week	Text Sections	Topics
1	1 *EViews Illustrated* Chap 1	Introduction, idea of regression, review of descriptive statistics and probability
2	2, Appendices A. B, *EViews Illustrated* Chap 2-3	continued…, begin simple regression
3	2, Appendix C	Simple regression, probability distribution of regression coefficients
4	2, Appendix C, 19	Hypothesis testing
5	3, 4	multiple regression
6	3, 4	Gauss-Markov theorem, hypothesis testing
7	6, 7	Functional forms, forecasting, time series analysis, dummy variables
8	8, 12	autocorrelation, heteroskedasticity
9	5, 15,16	Endogenous regressors and simultaneous equations
10	5, 15,16	…continued
11	13, 14.1, 17.1, 17.2	Dummy dependent variables, panel data

Sections of *Introductory Econometrics*, except where indicated.