Economics 581  Topics in Applied Microeconomics I  Fall 2010
Section 4790  T 6-8:40 p.m.  BS 3003

Syllabus
(version 1.2)

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Office Hours: T 3:30-5 pm and by appointment

Prerequisites:
The course will presume knowledge of E521 and E570.
(Generally speaking, knowledge of E570 is a more critical prerequisite than knowledge
of E521, but both are useful. We will do only a quick review of basic econometrics.)

The course will focus on empirical analysis in microeconomics, with special emphasis on
econometric techniques used in my research areas of interest, the economics of the
family, earnings and time allocation.

You are already familiar with Stata and may use that for exercises and for the paper in
this course. But I will also introduce you to a specialized software program, LIMDEP, that
gives you a tool that has been specially designed to address limited dependent variable
econometric estimation. So we will use that in addition to the Stata program you are
already familiar with from E570.

Wooldridge [required]. [JW]
Mostly Harmless Econometrics by Joshua Angrist and Jörn-Steffen Pischke [required]
[AP]
Software: LIMDEP, version 8.0; Stata version 11.0. (Loaded on the computers in BS
2003 and on the machines in the Social Science Computer Classroom (CA 436).

Other textbooks you may wish to consult:

Greene, William H. Econometric Analysis, Fifth (or later) edition, Prentice-Hall.
[doctoral econometrics level]
Long, J. Scott. Regression Models for Categorical Dependent Variables Using Stata, 2nd
Wooldridge, Jeffrey. Econometric Analysis of Cross Section and Panel Data. M.I.T.
Press, 2002. [advanced (doctoral) treatment]

In the schedule below, LN refers to my lecture notes which are posted on Oncourse; you
are expected to be familiar with these before the class meeting for which they are listed.
[except for class no. 1]
Schedule:

T Aug 24  Introduction and Models of Time Allocation and the Family
(Becker, Gronau, Ashenfelter and Heckman)...

T Aug 31  Models of Family Time Allocation II: Bargaining Models of the Family

T Sep 07  Applied Reg 1  LN4-5  [JW chs. 3-6];  \textcolor{red}{AP Chs. 1-2 [Li]; Article #1 [Ren]}

T Sep 14  Applied Reg 2 LN5-6  [JW 8-9];  \textcolor{red}{AP Ch. 3 (27-51) [Neidlinger]; Article #2 [Han]}

T Sep 21  Lab Session – Intro to Limdep...Stata Review -- provided data sets plus online data sets PSID, COPPS, ATUS

T Sep 28  I.V., Endogeneity & 2SLS [LN6-7, 7b]  [JW 15]; \textcolor{red}{AP Ch 3 (51-77) [Raghavan];}

T Oct 05  Probit and Logit [LN8-9]MLE [LN9];  [JW 17]; \textcolor{red}{AP Ch 3 (80-107) [Ren]; Article #4 [Kleckner]}

Assignment 1 due—Tuesday, Oct. 05th

T Oct 12  Midterm Exam [approx wts = 15% Family Econ; 25% Appl Reg; 60% IV/2SLS/LDV’s etc.]

T Oct 19  Fall Break

T Oct 26  Tobit [LN 10,10b]; Censored& Truncated Regression Models [LN 10C]; [JW 17]; \textcolor{red}{AP Ch. 4 (108-133) and (133 – 140, 150 - 161 ) Han and Haque; Article #5 [Raghavan]}

T Nov 02  Sample Selection Corrections (Heckit) LN10d [JW Ch. 17]; \textcolor{red}{AP Ch. 4 (161-181) [Kleckner]; Articles #6 and #7 [Li and Neidlinger]}

T Nov 09  Cross-sections over time: Pooling, FD, FE, RE [LN11, 11b]  \textcolor{red}{JW 13, 14;}

Section A [Han, Haque, Raghavan, Ren]—Present topic and plan of attack for project [15 minutes each]; section B discussants [5 minutes each]—I will be the discussant for one paper—by random draw.

T Nov 16  Fixed and Random Effects Models [LN12] [JW 14]
Section B [Kleckner, Li, Neidlinger] -- Present topics and plan of attack for project [15 minutes each]; section A discussants [5 minutes each]

Assignment 2 due—Tuesday, November 16th

T Nov 23 Count Models [LN 13]; Section A—Interim Report [15 minutes each; B discussant [5 minutes each]

T Nov 30 Duration Analysis [LN 14]; Section B—Interim Report [15 minutes each; A discussant [5 minutes each]

T Dec 07 Ordered Probit [LN 15]; Multinomial Logit, etc.[LN 15]; A and B—Final Report on Project [20 minutes each]; no discussants.

T Dec 14 FINAL EXAMINATION Comprehensive but more weight on material since midterm exam.

Grading: Grading will be on the usual scale: A+ (98-100); A (92-97); A- (90-91); B+ (88-89) and so on. As with all graduate classes, any grade below a B is an indicator that the student did not demonstrate the minimum competency expected of graduate students. The weighting will be:

2 in-term assignments @ 50 pts. each. These include problems from Wooldridge and computer exercises using Limdep [or Stata]. [Grade based on a random selection by instructor of about half of the problems assigned.]

1 presentation of material in Mostly Harmless Econometrics (25 pts.) Student presentation of material in AP should focus primarily on intuition rather than details of proofs...Make appt with me no later than the Friday before you are scheduled to present. [15 minutes to half hour]

1 presentation of an empirical article (25 pts.) Student presentation of an empirical paper they are interested in—must use some technique related to this course. Does the paper claim to have uncovered evidence of some causal relation? If so, how convincing is the argument for causality? (microeconometrics—IV, LDV, FE/RE panel, count data, duration data) [15 mins to half hour]

1 midterm exam worth 100 pts.

1 final examination that focuses primarily on econometric techniques and intuitive understanding, worth 150 pts.

1 empirical project worth 175 pts. (See below for more detail.) [100 points on what is turned in on the 7th of December; 25 pts on 3 in-class presentations.]

EMPIRICAL PROJECT
The empirical project will address:

**Option A:** One of the empirical issues identified in the discussion concerning empirical models in family economics. A series of regressions and diagnostics will be carried out, using Limdep 8.0 [or Stata], on an appropriate data set.

**Option B:** A replication of (at least) a portion of the empirical work for some current/recent paper appearing in the *Journal of Human Resources* (or other journal) that is appropriate for the econometric focus of this course. You must, typically, obtain a copy of the data set from the author of the article. (The *JHR* typically requires authors to make their data sets available for three years after their article is published.) If choosing this option, you should scan the *JHR* [or other journal of interest] between now and next week and send a request for the data right away. (There may be unforeseen difficulties or delays.)

**Option C:** An original question of your choice that relates to family or labor economics or a related area. [If you want to go this way, early conversations are strongly advisable.]

The paper, ordinarily about ten pages of written material, in addition to relevant tables, will consist of a discussion of the empirical issues involved in the topic, and a detailed description of the various regression results, diagnostics and final results of your study. (If you anticipate difficulty in finishing the project on time, please talk to me, in advance, about an extension.)

Students *may* wish to take a look at the *JEP* spring 2010 issue for a symposium (often critical) on the 'credibility revolution.' The most recent issue of *JEL* also has an interesting article or two on a similar topic.

**Journal of Economic Perspectives**

**Vol. 24, No. 2, Spring 2010**

*The Credibility Revolution in Empirical Economics: How Better Research Design Is Taking the Con out of Econometrics* (pp. 3-30)

Joshua D. Angrist and Jörn-Steffen Pischke

Abstract/Tools | Full-Text Article (Complimentary) | Comments (0)

*Tantalus on the Road to Asymptopia* (pp. 31-46)

Edward E. Leamer

Abstract/Tools | Full-Text Article (Complimentary) | Comments (0)

*A Structural Perspective on the Experimentalist School* (pp. 47-58)

Michael P. Keane

Abstract/Tools | Full-Text Article (Complimentary) | Comments (0)
ARTICLES

Regression Discontinuity Designs in Economics David S. Lee and Thomas Lemieux 281

Forum on the Estimation of Treatment Effects

Building Bridges between Structural and Program Evaluation Approaches to Evaluating Policy James J. Heckman 356

Better LATE Than Nothing:
Some Comments on Deaton (2009) and Heckman and Urzua (2009) Guido W. Imbens 399

Instruments, Randomization, and Learning about Development Angus Deaton 424