

Schedule of Classes

The course objective is to train students in statistical and econometric methods used in health services research, with a focus on practical application of advanced regression models. The course will be graded on the usual letter scale (A-F or pass/no pass). Classes will be held on Tuesdays and Thursdays from 3-4:50. Grades will be based on class participation (5%), homework assignments (35%) and a final research paper (60%). The research paper will be due at the time scheduled for the class final.

Students must purchase a course reader and the following textbook: J. Scott Long. *Regression Models for Categorical and Limited Dependent Variables*. Advanced Quantitative Techniques in the Social Sciences Series, Volume 7. Sage Publications, Inc. Thousand Oaks, CA: 1997. Additional readings and textbooks for the class are either on reserve at the library or available for free on the web to members of the UCLA community.

<u>Topic</u>	<u>Lecture(s)</u>	<u>Date(s)</u>
Introduction to class, first-difference models	1	Tuesday, April 6
Fixed effects and random effects models	2	Thursday, April 8
Multi-level models	3	Tuesday, April 13
Generalized Estimating Equations	4	Thursday, April 15
Utility theory framework for qualitative choice models Homework #1 due	5	Tuesday, April 20
Review of logit and probit models	6	Thursday, April 22
Multinomial and conditional logit models	7	Tuesday, April 27
Nested logit models	8	Thursday, April 29
Ordered logit models Homework #2 due	9	Tuesday, May 4
Taylor series, bootstrapping, and simulation methods for deriving confidence intervals Paper proposals due	10	Thursday, May 6
General discussion of proposals	11	Tuesday, May 11
Count data models (Poisson, negative binomial, zero inflation) Homework #3 due	12	Thursday, May 13
Two-part models	13	Tuesday, May 18
Tobit models Descriptive statistics due	14	Thursday, May 20
Sample selection models Homework #4 due	15	Tuesday, May 25
Treatment effects and bivariate probit models	16	Thursday, May 27

Two-stage least squares Homework #5 due	17	Tuesday, June 1
Two-stage least squares (cont'd)	18	Thursday, June 3
Instrumental variables with nonlinear variables Homework #6 due	19	Tuesday, June 8
Propensity scores and generalized linear models	20	Thursday, June 10
Final paper due Thursday, June 17th, by 5 p.m.		