

ECONOMICS 673
Microeconometrics
Syllabus

Class meetings: 9:00 to 9:50 a.m. MWF, 160 Heady Hall

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Office Hours: 10 to 10:50 a.m. MWF or by appointment

Class Homepage: <http://www.econ.iastate.edu/classes/econ673/Herriges/>

Required Text: Train, K. (2003), *Discrete Choice Methods with Simulation*, Cambridge, MA: Cambridge University Press. (available online at <http://elsa.berkeley.edu/books/choice2.html>)

Supplemental Texts:

- Cameron, A.C., and P. K. Trivedi (1998), *Regression Analysis of Count Data*, Cambridge: Cambridge University Press.
- Cameron, A.C., and P. K. Trivedi (2005) *Microeconometrics: Methods and Applications*, Cambridge: Cambridge University Press.
- Greene, W. H. (2000) *Econometrics Analysis* (4th edition) New York: MacMillan.
- Maddala, G. S. (1983), *Limited-dependent and Qualitative Variables*, Cambridge: Cambridge University Press.
- Rudd, P. (2000), *An Introduction to Classical Econometric Theory*, New York: Oxford University Press.
- Train, K. (1986), *Qualitative Choice Analysis: Theory, Econometrics, and an Application to Automobile Demand*, Cambridge, MA: The MIT Press.

Course Objectives: The objective of this course is to familiarize the student with the econometric theory and techniques having widespread applicability in empirical microeconomics. Particular emphasis is placed on qualitative choice/limited dependent variable models. In addition to emphasizing the statistical inference of these models, particular attention will also be paid to the role of microeconomic theory in model specification and to the application of these models in labor, health, transportation, and nonmarket valuation.

Grading: The course grade is based on

1. Midterm exam (25%)
2. Final exam (30%)
3. Paper (25%)
4. Problem sets (20%)

Guidelines for Paper:

1. The term paper for Microeconometrics should be well written, using one of the techniques developed in this course to address an issue in applied microeconomics. The paper can be on any topic you choose, but you are advised against undertaking new data collection *for the sake of this paper alone*. However, you are encouraged to view this paper as an opportunity to begin exploration into your dissertation research and as a step towards completing the third year paper required of Ph.D. candidates.
2. The term paper should be in the format and style used in economics journals such as the *Review of Economics and Statistics* or the *Journal of Applied Econometrics*. You are encouraged to organize the paper clearly into sections. At a minimum, your paper should include:
 - a. An Introduction, clearly stating the question being asked and why it is of interest. It is usually helpful to indicate where this research fits into the literature.
 - b. The Model Specification, providing a formal description of the economic and statistical aspects of the model you are employing. If you have some specific hypothesis that you will be testing (other than are the explanatory variables significant), this would be a good place to describe the hypothesis and the model restrictions it implies.
 - c. The Data, describing the data; i.e., where it comes from, how it was collected, variable definitions, and summary statistics.
 - d. Result, providing tables of the estimated model(s) and your interpretation of your findings. *Do not report 8 to 12 significant digits in your table!* Typically, two of three significant digits will suffice and are all that can reasonably be supported (given rounding errors, etc.). More digits are simply distracting and convey a mistaken sense of precision regarding your estimates.
 - e. Conclusions, describing what you have learned from this exercise and, perhaps, what further analysis or data collection might be suggested by your results.

Additional sections are possible, but are not required. The paper will be graded on the basis of *both* the presentation and the econometric analysis.

3. The paper should be your own work and written for this course.
4. You should submit the computer output that generated the results described in the paper, labeling the results so that I can readily match the output with the results reported in the paper's tables.
5. A one-page proposal for the paper is due November 3rd, describing the basic analysis you propose to conduct and your data source(s).
6. The paper itself is due August 15, 2009.