APPLIED ECONOMETRICS

FALL, 1999

This document can be expected to change over the course of the semester. The authoritative version may be found at http://are.Berkeley.EDU/~ligon/Teaching/ARE213/are213.html.

Prerequisites: ARE 212 or ECON 240A and B. A knowledge of economic analysis at roughly the level it is taught in Economics 201 is presupposed. Students are expected to have at least a rudimentary familiarity with the UNIX operating system.

1. Organization

ARE 213 will be taught in two different parts, by two different instructors.

I. Seven weeks (August 23–October 11th), by Ethan Ligon, on the Generalized Method of Moments and its applications.
   A. {Rev,Over} view
   B. Models and Restrictions
   C. Instrumental Variables
   D. Simultaneous Equations
   E. Inference and Weighting Matrices
   F. Three stage least squares
   G. Semi-parametric estimation

II. Seven weeks (October 13–December 6), by Michael Ward, a survey of qualitative variables and nonparametric techniques with emphasis on applications to producer and consumer choice.
   A. Dichotomous Choice: Probit and Logit
   B. Multiple Choice: Conditional/Multinomial Logit, Nested Logit, Ordered Probit
   C. Truncated and Censored Regression
   D. Systems of Consumer and Producer Demand
   E. Semi-Parametric and Non-Parametric Regression
   F. Bootstrap
   G. Introduction to Non-Parametric Statistics

1.1. Classes. Class will meet in 2305 Tolman. There will be two weekly lectures (on Mondays and Wednesdays, from 10:00–11:30).

1.2. Assignments and Grading. There will be six problem sets assigned during the term. We will be using Matlab students in ARE should already have accounts on the unix machines in ARE. Students who have no such account should see Dana Keil (dana@are.berkeley.edu) to make the appropriate arrangements.

There will be one 1 hour 30 minute open book exam at the end of each 7-week period (October 11 and December 6th).

Each instructor will give a grade, based on the 3 problem sets and the exam of the corresponding period, with 17% for each problem set and 50% for the exam. Problem sets need to be handed on the due date. One point out of a total of 6 will be taken off for each day late. The overall class grade is the average of the grades for each of the two parts of the course.

1.3. Reading. In addition to particular papers or articles, which will be put on reserve in the Giannini Library, we will use the following texts:

- Davidson and MacKinnon (1993)
- Maddala (1986)
- Davison and Hinkley (1997)
1.4. **Office Hours.**

- Ethan Ligon will hold office hours on Mondays, from 12:30–1:30 in Giannini 304.
- Michael Ward will hold office hours Tuesday/Thursday 2–3 or by drop in Giannini 305.

**References**

