Department of Economics, UC Berkeley M. Jansson, B. Graham

Economics 240A: Econometrics

This is the first course in a two-semester sequence on econometrics, including statistical tools useful in economic applications and procedures used for empirical implementation and validation of economic relationships. The first half of the semester is an introduction to probability theory and statistical inference, while the second half covers the general linear regression model. The course emphasizes techniques for statistical inference, with accompanying theory. Experience in application of the tools is provided in a computer laboratory. Prerequisites are an upper-division undergraduate course in mathematical statistics and a working knowledge of linear algebra (at the level of Economics 204).

The class will meet Monday and Wednesday 10:00-12:00 in Anthropology and Art Practice 0155. In addition, weekly sections will be conducted. Grading will be based on performance on the (approximately biweekly) problem sets (25%) and two midterm exams (75%). The midterm exams will be given on October 13 and December 1, respectively; no make-up exams will be given. Any time conflicts should be discussed with the instructor well before the exam date.

The text for the first half of the class is:

- Casella, G. and R.L. Berger, *Statistical Inference, Second Edition.* Duxbury Press, 2002 (cited as "Casella and Berger").

COURSE OUTLINE/READINGS FOR FIRST HALF:

1. **Review of probability theory**
   Casella and Berger, Chapters 1-5
2. **Statistical inference**
   Casella and Berger, Chapters 6-9

COVID-19 POLICIES

Students must adhere strictly to UC Berkeley face covering requirements; for details, please see `https://coronavirus.berkeley.edu/return-to-campus/face-coverings/`. (Currently, you are required to wear face coverings in class even if you are fully vaccinated.)