

### Course Information

Economics 7828 is a one-semester course in the fundamentals of econometrics. We will study the classical, normal, linear regression model. This course is required of all Ph.D students in economics, and is the prerequisite for Econ 8828 and Econ 8838, the seminar courses for those students wishing to take econometrics as a field.

Meetings: class will meet TR 9:30 - 10:45 in Room 5 of the Economics building.

Prerequisites: Econ 7818, and knowledge of basic linear algebra (see Appendix A in the text).

Requirements: There will be a midterm exam, a final exam, and periodic problem sets, each contributing approximately 1/3 to the course grade.

Text: Econometric Analysis, by William H. Greene, 5th edition (2003), Prentice Hall. This widely used text is a good reference for the practicing econometrician. It is available in the bookstore and on Amazon. Any edition will be acceptable.

The course website is through the CU Learn program.

Tentative text coverage: Parts of Chapters 1 - 8 and 10 - 12, 14 - 15.

#### Outline

Week 1	Introduction to econometrics	Ch. 1
Weeks 1-2	Specification of the general linear model and estimation by least squares	Chs. 2 - 3
Weeks 3-4	Finite and large sample properties of least squares estimators	Chs. 4 - 5
Weeks 5-6	Inference and prediction	Ch. 6
Week 7	Functional form and model specification	Chs. 7 - 8

#### Midterm exam

Weeks 8-9	The generalized linear regression model	Chs. 10 - 12
Week 10	Systems of regression equations	Ch. 14
Weeks 11-12	Simultaneous equations models	Ch. 15
Weeks 13-14	Topics in econometrics	
Week 15	Review	