James Hamilton
University of California, San Diego
Economics 220B
Winter 2006

Obtaining the Reading Material

Books available at UCSD bookstore:

Fumio Hayashi, *Econometrics,* Princeton University Press, 2001. This is the main text for the course. Click here for the home page for Hayashi's text.

James D. Hamilton, *Time Series Analysis,* Princeton University Press, 1994. This book is used as an optional supplementary text for the course and is also used in other courses at UCSD.

Journal articles:

N. Gregory Mankiw, David Romer, and David Weil, "A Contribution to the Empirics of Economic Growth," Quarterly Journal of Economics,107, May 1992, pp. 407-437.

Howard J. Wall, "Using the Gravity Model to Estimate the Costs of Protection," Federal Reserve Bank of St. Louis Review, Jan/Feb 1999, pp. 33-40.

Stephen V. Cameron and James J. Heckman, "The Nonequivalence of High School Equivalents," *Journal of Labor Economics,* Vol. 11, part 1, Jan 1993, pp. 1-47.

Joshua D. Angrist, "Lifetime Earnings and the Vietnam Era Draft Lottery: Evidence from Social Security Administrative Records," American Economic Review, 80, June 1990, pp. 313-336; *Errata,* December 1990, pp. 1284-1286.

James D. Hamilton, "The Supply and Demand for Federal Reserve Deposits," *Carnegie-Rochester Conference Series on Public Policy,* 49, December 1998, pp. 1-44.

Hard copies of above articles are available in the Graduate Student Lounge (Room 106 of Sequoyah Hall). Please keep these articles in the lounge at all times. You can also try to obtain the articles from the original sources referenced here.

Alternatively, several of the articles can be downloaded. The syllabus you are now reading can also be viewed as an HTML document on

. If you are viewing this as an HTML document, clicking on any active link above will take you immediately to the source where the article can be viewed online or downloaded. You will need the Adobe Acrobat Reader to view these, which can be downloaded from Adobe.

Grading Policy

Grades for Econ 220B will be determined as follows:

20%: Problem Sets. You may work together on these, but must hand in your own write-up of the answers. These are used as a study guide and supplement to the reading and lectures.

30%:Midterm Exam. This will be on Thursday, February 9. No books or notes allowed.

50%: Final Exam. This will be on Monday, March 20, from 11:30 a.m. to 2:30 p.m.

Office hours for Professor Hamilton:

Tuesdays and Thursdays 12:30-1:30 in Econ 307

No office hours Thurs Jan 12 (make up Wed Jan 11 1:30-2:30)

No office hours Tues Mar 14 or Thurs Mar 16 (make up Mon Mar 13 10:00-12:00)

Office hours for T.A. Grayson Calhoun:

Mondays and Wednesdays 12:00-1:30 in Econ 123

Course Outline

Tues Jan 10	Review of linear algebra (Hamilton, Section A.4, pp. 721-739)
Thurs Jan 12	The algebra of least squares (Hayashi, Section 1.2)
Tues Jan 17	The classical regression model (Hayashi, Sections 1.1 and 1.3; Hamilton, Section 8.1)

Thurs Jan 19	Hypothesis testing (Hayashi, Sections 1.4 and 1.7)
Tues Jan 24	Generalized least squares (Hayashi, Section 1.6)
Thurs Jan 26	Asymptotic distribution theory (Hayashi, Sections 2.1-2.2; Hamilton, Section 7.1)
Tues Jan 31	Large sample properties of OLS (Hayashi, Sections 2.3 and 2.9; Hamilton, Section 8.2)
Thurs Feb 2	Hypothesis testing-- asymptotic results (Hayashi, Sections 2.4-2.6; Hamilton, Section 8.2)
Tues Feb 7	Maximum likelihood estimation (Hayashi, Section 1.5; Hamilton, Section 5.7)
Thurs Feb 9	Midterm exam
Tues Feb 14	Heteroskedasticity and serial correlation (Hayashi, Sections 2.7, 2.8, 2.10, 2.11; Hamilton, Section 8.3)
Thurs Feb 16	Simultaneous equations bias (Hayashi, Sections 3.1-3.2; Hamilton, Section 9.1)
Tues Feb 21	Applied econometrics (Mankiw, Romer, and Weil; Wall)
Thurs Feb 23	Applied econometrics (Cameron and Heckman; Angrist; Hamilton 1998)
Tues Feb 28	General formulation (Hayashi, Section 3.3; Hamilton, Section 9.2)
Thurs Mar 2	Generalized method of moments (Hayashi, Sections 3.4-3.6; Hamilton, Section 14.1)
Tues Mar 7	Uses of GMM (Hayashi, Sections 3.8-3.9; Hamilton, Section 14.2)
Thurs Mar 9	Maximum likelihood estimation-- a deeper perspective (Hamilton, Section 14.4)
Tues Mar 14	Numerical optimization (Hamilton, Sections 5.7-5.9)
Thurs Mar 16	Review session run by Grayson Calhoun

Mon Mar 20	Final exam (11:30-2:30)