James Hamilton
University of California, San Diego
Economics 220B
Winter 2004

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 the Economics Building). 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 http://econ.ucsd.edu/~jhamilto/econ220b.html. 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.

Date	Topic
Mon Jan 26	Asymptotic distribution theory (Hayashi, Sections 2.1-2.2; Hamilton, Section 7.1)
Wed Jan 28	Large sample properties of OLS (Hayashi, Sections 2.3 and 2.9; Hamilton, Section 8.2)
Mon Feb 2	Hypothesis testing-- asymptotic results (Hayashi, Sections 2.4-2.6; Hamilton, Section 8.2)
Wed Feb 4	Maximum likelihood estimation (Hayashi, Section 1.5)
Mon Feb 9	Midterm exam
Wed Feb 11	Heteroskedasticity and serial correlation (Hayashi, Sections 2.7, 2.8, 2.10, 2.11; Hamilton, Section 8.3)

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 Monday, February 9. No books or notes allowed.

50%: Final Exam. This will be on Monday, March 15, from 8:00 a.m. to 11:00 a.m.

Course Outline

Mon Jan 5	Review of linear algebra (Hamilton, Section A.4, pp. 721-739)
Wed Jan 7	[No scheduled class]
Mon Jan 12	The algebra of least squares (Hayashi, Section 1.2)
Wed Jan 14	The classical regression model (Hayashi, Sections 1.1 and 1.3; Hamilton, Section 8.1)
Fri Jan 16	[Make-up lecture] Hypothesis testing (Hayashi, Sections 1.4 and 1.7)
Mon Jan 19	University holiday (no class)
Wed Jan 21	Generalized least squares (Hayashi, Section 1.6)
Mon Jan 26	Asymptotic distribution theory (Hayashi, Sections 2.1-2.2; Hamilton, Section 7.1)
Wed Jan 28	Large sample properties of OLS (Hayashi, Sections 2.3 and 2.9; Hamilton, Section 8.2)
Mon Feb 2	Hypothesis testing-- asymptotic results (Hayashi, Sections 2.4-2.6; Hamilton, Section 8.2)
Wed Feb 4	Maximum likelihood estimation (Hayashi, Section 1.5)
Mon Feb 9	Midterm exam
Wed Feb 11	Heteroskedasticity and serial correlation (Hayashi, Sections 2.7, 2.8, 2.10, 2.11; Hamilton, Section 8.3)

Mon Feb 16	University holiday (no class)
Wed Feb 18	Simultaneous equations bias (Hayashi, Sections 3.1-3.2; Hamilton, Section 9.1)
Mon Feb 23	Applied econometrics (Mankiw, Romer, and Weil; Wall)
Wed Feb 25	Applied econometrics (Cameron and Heckman; Angrist; Hamilton 1998)
Mon Mar 1	General formulation (Hayashi, Section 3.3; Hamilton, Section 9.2)
Wed Mar 3	Generalized method of moments (Hayashi, Sections 3.4-3.6; Hamilton, Section 14.1)
Mon Mar 8	Uses of GMM (Hayashi, Sections 3.8-3.9; Hamilton, Section 14.2)
Wed Mar 10	Maximum likelihood estimation-- a deeper perspective (Hamilton, Section 14.4)
Mon Mar 15	Final exam (8:00 a.m. – 11:00 a.m.)