

Econ 220B Course Syllabus, Winter 2011

University of California, San Diego

Course web page:

<http://dss.ucsd.edu/~jhamilto/Econ220B.html>

Instructor:

- James Hamilton (jhamilton@ucsd.edu)
- Lectures: M-W 8:00-9:20 a.m. in Econ 300
- Office hours: M 12:15-1:15 p.m. and Th 2-3 p.m. in Econ 307

Teaching assistant:

- Jong-myun Moon
- Review session: Fridays 8:20-9:20 a.m. in Econ 300
- Office hours: Wednesdays 10-11 a.m. in Econ 119

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 and Jorn-Steffen Pischke, "The Credibility Revolution in Empirical Economics: How Better Research Design is Taking the Con out of Econometrics," [Journal of Economic Perspectives](#), 24, Spring 2010, pp. 3-30.

Douglas Staiger and James H. Stock, "Instrumental Variables Regression with Weak Instruments," [Econometrica](#) 65, May 1997, pp. 557-586.

The articles above can be downloaded online. The syllabus you are now reading can also be viewed as an HTML document at <http://dss.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.

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, Feb 7. No books or notes allowed.
- 50%: Final Exam. This will be on Monday, March 14, from 8:00 to 11:00. No books or notes allowed.

Course Outline

Mon Jan 3	Review of linear algebra (Hamilton, Section A.4, pp. 721-739)
Wed Jan 5	The algebra of least squares (Hayashi, Section 1.2)
Mon Jan 10	The classical regression model (Hayashi, Sections 1.1 and 1.3; Hamilton, Section 8.1)
Wed Jan 12	Hypothesis testing (Hayashi, Sections 1.4, 1.5, and 1.7)
Mon Jan 17	University holiday-- no scheduled class
Wed Jan 19	Generalized least squares (Hayashi, Section 1.6)
Mon Jan 24	Asymptotic distribution theory (Hayashi, Sections 2.1-2.2; Hamilton, Section 7.1)
Wed Jan 26	Large sample properties of OLS (Hayashi, Sections 2.3 and 2.9; Hamilton, Section 8.2)
Mon Jan 31	Hypothesis testing-- asymptotic results (Hayashi, Sections 2.4-2.6; Hamilton, Section 8.2)
Wed Feb 2	Heteroskedasticity and serial correlation (Hayashi, Sections 2.7, 2.8, 2.10, 2.11; Hamilton, Section 8.3)

Mon Feb 7	Midterm exam
Wed Feb 9	Simultaneous equations bias (Hayashi, Sections 3.1-3.2; Hamilton, Section 9.1)
Mon Feb 14	Applied econometrics (Mankiw, Romer, and Weil; Wall)
Wed Feb 16	Applied econometrics (Cameron and Heckman; Angrist and Pischke)
Mon Feb 21	University holiday-- no scheduled class
Wed Feb 23	General formulation (Hayashi, Section 3.3; Hamilton, Section 9.2)
Mon Feb 28	Weak instruments (Staiger and Stock)
Wed Mar 2	Generalized method of moments (Hayashi, Sections 3.4-3.6; Hamilton, Section 14.1)
Mon Mar 7	Uses of GMM (Hayashi, Sections 3.8-3.9; Hamilton, Section 14.2)
Wed Mar 9	Maximum likelihood estimation (Hamilton, Section 14.4)
Mon Mar 14	Final exam (8-11 a.m.)