

University of Colorado at Boulder
Department of Economics

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<http://www.colorado.edu/Economics/Zax>

Economics 4818
Syllabus and Schedule
8 January 2010

Welcome. I am Prof. Jeffrey S. Zax. This is Economics 4818, Introduction to Econometrics.

Course description:

The purpose of this course is to introduce students to the practice of econometric analysis. This introduction includes relatively rigorous training in basic econometric and statistical theory, and practical exercises using Census and simulated data. The successful student should be trained to perform econometric analysis at well above the standards ordinarily encountered in commercial and government practice.

This course requires previous successful completion of Economics 3818, Introduction to Statistics with Computer Applications, or its equivalent. In particular, it assumes that students understand expected values. This course does not require calculus or linear algebra. However, success is not possible without competence in algebra. In particular, it assumes that students understand summation signs.

The material to be mastered in this course is contained in the lectures, problem sets, computer exercises and textbook. The text for this course is the draft of my Introductory Econometrics: Intuition, Proof and Practice, referred to in the schedule as “text”. Photocopies of this text are available at the UMC bookstore. The text, assignments, answer keys and other communications will be available at the course website:

<http://www.colorado.edu/Economics/Zax/Econ4818/spring10/webpages/econ4818.html>.

This course will meet on Mondays, Wednesdays and Fridays from 2:00 p.m. until 2:50 p.m. throughout the semester in Economics 119. I will hold regular office hours between 1:00 p.m. and 2:00 p.m. on Mondays, Wednesdays and Fridays in Economics 111, my office. Appointments can be made for meetings at other times, if these are inconvenient.

Performance in this class will be judged on the basis of several instruments. The final examination will take place on Tuesday, 4 May, from 1:30p.m. –4:00p.m. It will require the full 2.5 hours and be worth 150 points. Any student who has three or more final examinations scheduled on 4 May has the right to reschedule all exams following the first two. Any student wishing to invoke this right must do so by 20 February.

Two 50-minute midterm examination, each worth 50 points, will take place on 19 February and 2 April. Problem sets will be frequent, certainly weekly and perhaps more often. The extent of each assignment will be scaled so as to be appropriate for the frequency. Assignments will typically consist of problems from the text. All problem sets together will be valued at 150 points. Solutions to the midterm examinations and problem sets will be available on the course website soon after they are due.

The course as a whole is valued at 400 points. The score attained by each student, evaluated relative to the score which would be attained by an intelligent student of econometrics at this level, will determine final letter grades.

Tentative schedule:

<u>Topic</u>	<u>Readings</u>	<u>Tentative Dates</u>
What is a regression?	Text, chapter 1	11, 13, 15 January
Introduction and math prerequisite	Text, chapter 2	20, 22, 25 January
Covariance and correlation	Text, chapter 3	27, 29 January, 1 February
Fitting a line	Text, chapter 4	3, 5, 8, 10 February
From sample to population	Text, chapter 5	12, 15, 17 February
First midterm examination		19 February
Confidence intervals and hypothesis tests	Text, chapter 6	22, 24, 26 February
Inference in OLS	Text, chapter 7	1, 3, 5 March
Non-zero expectations	Text, chapter 8	8, 10 March
Heteroskedasticity	Text, chapter 9	12, 15, 17 March
Autocorrelation	Text, chapter 10	19, 29, 31 March
Second midterm examination		2 April
Endogeneity	Text, chapter 11	5, 7, 9 April
More explanatory variables	Text, chapters 12, 13	12, 14, 16 April

Express yourself	Text, chapters 14, 15	19, 21, 23 April
Categorical dependent variables	Text, chapter 16	26, 28, 30 April
Final Examination		Tuesday, 4 May, 1:30p.m. –4:00p.m.

Relevant University policies:

The University adheres to the standards for student privacy rights and requirements as stipulated in the Federal Rights and Privacy Act (FERPA) of 1974.¹ Campus policy regarding disabilities requires that faculty adhere to the recommendations of Disability Services. In addition, campus policy regarding religious observances requires that faculty make every effort to reasonably and fairly accommodate all students who, because of religious obligations, have conflicts with scheduled examinations, assignments or required attendance. Any student eligible for and needing academic adjustments or accommodations because of disability or religious practice should arrange to meet with me immediately. Those with disabilities should immediately submit a letter from Disability Services describing appropriate adjustments or accommodations.²

Students and faculty share responsibility for maintaining an appropriate learning environment. All are subject to the University's policies on Sexual Harassment and Amorous Relationships.³ Students who fail to adhere to appropriate behavioral standards may be subject to discipline. Faculty have the professional responsibility to treat students with understanding, dignity and respect, to guide classroom discussion and to set reasonable limits on the manner in which students express opinions.⁴ I am happy to discuss any issues of individual or group treatment in office hours or by appointment.

¹ A summary is available at http://registrar.colorado.edu/regulations/ferpa_guide.html.

² University policies regarding religious practice are available at http://www.colorado.edu/policies/fac_relig.html. University policies regarding disabilities are available at <http://www.colorado.edu/disabilityservices>. Disability Services can be contacted by telephone at 303-492-8671, or in person at Willard 322.

³ University policies regarding Sexual Harassment and Amorous Relationships are available at <http://www.colorado.edu/odh/>. The Office of Discrimination and Harassment can be reached by telephone at 303-492-2127. The Office of Judicial Affairs can be reached at 303-492-5550.

⁴ University policies regarding classroom behavior are available at <http://www.colorado.edu/policies/classbehavior.html> and at http://www.colorado.edu/studentaffairs/judicialaffairs/code.html#student_code

All students of the University of Colorado at Boulder are responsible for knowing and adhering to this institution's policy regarding academic integrity. Cheating, plagiarism, fabrication, lying, bribery, threatening behavior and assistance to acts of academic dishonesty are examples of behaviors that violate this policy. Ordinarily, a student engaged in any act of academic dishonesty will receive a failing grade for the course. In addition, all incidents of academic misconduct shall be reported to the Honor Code Council. Depending on its findings, students who are found to be in violation of the academic integrity policy will be subject to non-academic sanctions, including but not limited to university probation, suspension, or expulsion.⁵

⁵ The Honor Code Council can be contacted by email at honor@colorado.edu or by telephone at 303-725-2273. Additional information regarding the University Honor Code is available at <http://www.colorado.edu/policies/honor.html> and at <http://www.colorado.edu/academics/honorcode/>.