

**University of Colorado at Boulder**  
**Department of Economics**

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

**Economics 4818**  
**Syllabus and Schedule**  
**17 August 2006**

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 extensive 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 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 principal 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. Assignments, answer keys and other communications will be available at the course website:

<http://www.colorado.edu/Economics/Zax/Econ4818/spring06/webpages/econ4818.html>.

This course will meet on Tuesdays and Thursdays from 12:30 p.m. until 1:45 p.m. throughout the semester in Humanities 135. I will hold regular office hours between 2:00 p.m. and 3:30 p.m. on Tuesdays and Thursdays in my office, Economics 111. 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 Saturday, December 16<sup>th</sup>, from 7:30a.m. –10:00a.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 16 December has the right to reschedule all exams following the first two. Any student wishing to invoke this right should do so at the earliest possible time. However, given the

early hour of the final examination in this course, it is unlikely that anyone is eligible to reschedule this examination.

One 75-minute midterm examination, worth 75 points, will take place on 12 October. One 25-minute quiz, worth 25 points, will take place on 14 November. Problem sets, typically consisting of problems from the text, will be valued at 150 points. Solutions to the midterm examination, quiz 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	29 August
Introduction and math prerequisite	Text, chapter 2	31 August
Covariance and correlation	Text, chapter 3	5 September
Introduction to SAS		7, 12 September
Fitting a line	Text, chapter 4	14, 19 September
From sample to population	Text, chapter 5	21, 26, 28 September
Confidence intervals and hypothesis tests	Text, chapter 6	3 October
Inference in OLS	Text, chapter 7	5, 10 October
First midterm examination		12 October
Non-zero expectations	Text, chapter 8	17 October
Heteroskedasticity	Text, chapter 9	19, 24 October
Autocorrelation	Text, chapter 10	26, 31 October
Endogeneity	Text, chapter 11	2, 7, 9 November
Quiz		14 November

More explanatory variables	Text, chapters 12, 13	14, 16, 28 November
Express yourself	Text, chapters 14, 15	30 November, 5, 7 December
Categorical dependent variables	Text, chapter 16	12, 14 December
Final Examination		Saturday, 16 December, 7:30a.m. –10:00a.m.

### University policies:

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.<sup>1</sup>

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.<sup>2</sup> 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.<sup>3</sup> I am happy to discuss any issues of individual or group treatment in office hours or by appointment.

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<sup>1</sup> 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. University policies regarding religious practice are available at [http://www.colorado.edu/policies/fac\\_relig.html](http://www.colorado.edu/policies/fac_relig.html).

<sup>2</sup> 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.

<sup>3</sup> 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](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, assistance to acts of academic dishonesty, fabrication, lying, bribery, and threatening behavior are examples of behaviors that violate this policy. All incidents of academic misconduct shall be reported to the Honor Code Council. Students who are found to be in violation of the academic integrity policy will be subject to both academic sanctions from the faculty member and non-academic sanctions, including but not limited to university probation, suspension, or expulsion.<sup>4</sup>

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<sup>4</sup> The Honor Code Council can be contacted by email at [honor@colorado.edu](mailto: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/>.