University of Colorado at Boulder Department of Economics

Prof. Jeffrey S. Zax zax@colorado.edu 303-492-8268 http://www.colorado.edu/Economics/Zax

Economics 4818 Syllabus and Schedule 9 May 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, <u>Introduction to</u> <u>Statistics with Computer Applications</u>, or its equivalent. In particular, it assumes that students understand expected values and has some familiarity with confidence intervals and hypothesis tests. 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 <u>Introductory Econometrics:</u> <u>Intuition, Proof and Practice</u>, referred to in the schedule as "text". Photocopies of this text are available at the UMC bookstore. The text, assignments, answers and other communications are or will be available at the course website:

http://www.colorado.edu/Economics/Zax/Econ4818/summer10/webpages/econ4818.html.

This course will meet every week day from Monday, 10 May, through Thursday, 27 May, from 9:00 a.m. until 12:15 p.m. in ECCR 235. With one exception, I will hold office hours on those days between 1:00 p.m. and 2:00 p.m. in Economics 111, my office. On Tuesday, 11 May, I will hold office hours from 12:30 p.m. to 1:30 p.m.

Performance in this class will be judged on the basis of several instruments. The final examination will take place during the last 90 minutes of our last class, on Thursday, 27 May. It will be worth 90 points. Each class beginning on Tuesday, 11 and ending on Wednesday, 26 May will begin with a 15 minute quiz on the previous day's material. Each quiz will be worth 15. Points. The 12 quizzes together will be worth 180 points, or twice the final exam. A problem set will be assigned each day through Wednesday 26 May, to be due the following day. Each problem set will be worth 10 points. The 13 problem sets together will be worth 130 points.

Problem sets will typically consist of problems from the text. Quiz and exam questions may also come from the text, or will be similar to problems in the text. Solutions to the quizzes 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> What is a regression?	<u>Readings</u> Text, chapter 1	<u>Tentative Dates</u> 10 May
Introduction and math prerequisite	Text, chapter 2	10 May
Covariance and correlation	Text, chapter 3	11 May
Fitting a line	Text, chapter 4	12 May
From sample to population	Text, chapter 5	13 May
Confidence intervals and hypothesis tests	Text, chapter 6	14 May
Inference in OLS	Text, chapter 7	17 May
Non-zero expectations	Text, chapter 8	18 May
Heteroskedasticity	Text, chapter 9	19 May
Autocorrelation	Text, chapter 10	20 May
Endogeneity	Text, chapter 11	21 May
More explanatory variables	Text, chapters 12, 13	24, 25 May
Express yourself	Text, chapters 14, 15	26, 27 May

Thursday, 27 May,10:45a.m. –12:15p.m.

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 polices 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.

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 dishonest

² University polices regarding religious practice are available at <u>http://www.colorado.edu/policies/fac_relig.html</u>. University policies regarding disabilities are available at <u>http://www.colorado.edu/disabilityservices</u>. 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 <u>http://www.colorado.edu/odh/</u>. 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.

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

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

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 <u>http://www.colorado.edu/policies/honor.html</u> and at <u>http://www.colorado.edu/academics/honorcode/</u>.