

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

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**Economics 4818**  
**Syllabus and Schedule**  
**10 January 2005**

Welcome. I am Prof. Jeffrey S. Zax. This is Economics 4818, Introduction to Econometrics. 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 well above the standards ordinarily encountered in commercial and government practice.

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 will be the draft of my Introductory Econometrics: Intuition, Proof and Practice, referred to in the schedule as “Zax”. It will be available in .pdf format at the course website,

[www.colorado.edu/AcademicAffairs/ArtsSciences/Economics/Zax/Econ4818](http://www.colorado.edu/AcademicAffairs/ArtsSciences/Economics/Zax/Econ4818).

I may also assign a programming workbook. Assignments, answer keys and other communications will also be available at this website.

This course will meet on Mondays, Wednesdays and Fridays from 10:00 a.m. until 10:50 a.m. throughout the semester in Economics 119. I will hold regular office hours between 11:00 a.m. and 12:00 p.m. on Mondays and Wednesdays in my office, Economics 111. Appointments can be made for meetings at other times, if these are inconvenient.

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 must 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>

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<sup>1</sup> University policies regarding disabilities are available at [www.colorado.edu/disabilityservices](http://www.colorado.edu/disabilityservices). Disability Services can be contacted by telephone at 303-492-8671, or in person at Willard 322. Policies regarding religious practice are available at [www.colorado.edu/policies/fac\\_relig.html](http://www.colorado.edu/policies/fac_relig.html).

Students and faculty share responsibility for maintaining an appropriate learning environment. 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>2</sup>

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>3</sup>

Performance in this class will be judged on the basis of several instruments. The final examination will take place on Tuesday, May 3rd, 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 final examinations scheduled on 3 May and wishes to reschedule the final examination in this course must meet with me immediately.<sup>4</sup>

Two 50-minute midterm examinations, worth 50 points each, will take place on 11 February and 18 March. Problem sets, typically consisting of problems from the text, 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.

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<sup>2</sup> University policies regarding classroom behavior are available at [www.colorado.edu/policies/classbehavior.html](http://www.colorado.edu/policies/classbehavior.html) and at [www.colorado.edu/studentaffairs/judicialaffairs/code.html#student\\_code](http://www.colorado.edu/studentaffairs/judicialaffairs/code.html#student_code)

<sup>3</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 [www.colorado.edu/policies/honor.html](http://www.colorado.edu/policies/honor.html) and at [www.colorado.edu/academics/honorcode/](http://www.colorado.edu/academics/honorcode/)

<sup>4</sup> University policies regarding multiple final examinations on the same day are available at [www.colorado.edu/policies/final\\_exam.html](http://www.colorado.edu/policies/final_exam.html).

**Tentative schedule of topics:**

<u>Topic</u>	<u>Readings</u>	<u>Tentative Dates</u>
Introduction and math prerequisite	Zax, chapter 2	10 January
What is a regression?	Zax, chapter 1	12 January
Covariance and correlation	Zax, chapter 3	14, 19 January
Introduction to SAS		21, 24 January
Fitting a line	Zax, chapter 4	26, 28, 31 January
From sample to population	Zax, chapter 5	2, 4, 7, 9 February
First midterm examination		11 February
Inference in OLS	Zax, chapter 6	14, 16, 18 February
Non-zero perturbation expectations	Zax, chapter 7	21 February
Heteroskedasticity	Zax, chapter 8	23, 25 28 February
Autocorrelation	Zax, chapter 9	2, 4, 7 March
Endogeneity	Zax, chapter 10	9, 11, 14, 16 March
Second midterm examination		18 March
More explanatory variables	Zax, chapter 11	28, 30 March, 1 April
Express yourself	Zax, chapter 12	4, 6, 8 April
Categorical dependent variables	Zax, chapter 13	11, 13, 15 April
Selection	Zax, chapter 14	18, 20, 22 April
Forecasting	Zax, chapter 15	25, 27 April
Conclusion	Zax, chapter 16	29 April
Final Examination		Tuesday, 3 May, 1:30p.m. – 4:00p.m.