

Grading:

Examinations and assignments for the course will total approximately 700 points. The approximate distribution of these points is as follows.

First Examination	100 points
Second Examination	100 points
Problem Sets	250 points
Term Paper	100 points
Final Examination	150 points

The instructor reserves the right to change the percentage of points in the course requirements. The most likely change will be to problem sets. Quizzes and additional out-of-class assignments may be added. It is most likely that the points allocated to out-of-class assignments will be increased. But, any changes will be communicated.

Final grades for the course will be determined on the standard modification to the 90-80-70-60 scale that accompanies Graduate School courses. Any student receiving less than 80% on the graded course material will receive an "C." There are no exceptions and no negotiation. (In addition, any student receiving less than 60% on the graded course material will receive an "F." This rule will be exercised in unique cases.) If a student shows strong improvement in exam scores over the semester, the instructor reserves the right to weigh the end-of-semester exams more heavily when calculating that student's final grade. The instructor will make minimal use of the +/- grading system.

Assignments:

There will be three in-class examinations. There will be two 100-point exams given during the semester. Make-up exams will be the option of the instructor. If any student must miss an exam due to an emergency, or due to a scheduling conflict, which is communicated to the instructor prior to the exam then the student's final grade may be based on the other exams taken. There will be a 150-point final exam at the end of the semester.

There will be two types of graded out-of-class assignments. Students will be assigned approximately five problem sets. This work will expose the student to a variety of methods and data types. The instructor will provide the data and ask a variety of questions related to the modeling process and economic interpretation. Students will perform the analysis and write a short report describing the results of the analysis and answering the questions. The work must be an independent effort on the part of each student. Assignments will be about one week in duration and made about every two weeks. Students will need to become familiar with at least one spreadsheet and statistical regression software package.

Students will also write a term paper. The length will be no more than 12 pages. The paper should be appropriate for submission and presentation at a professional association meeting. The paper can cover thesis research or another research project. The assignment is cumulative. The project must apply econometrics. The project should be designed to integrate econometric methodology with applied economic problem solving. The first draft of the paper will present the Problem Statement, Objectives, and Hypotheses. From here, the student will take *one of two paths*. *The First Path* is an applied econometric research project. The second draft will present an econometric model, data requirements, and anticipated results. The final version will demonstrate the student is ready to conduct applied research and will form the base of a paper to be submitted for presentation at professional meetings. The more complete the results are then better the final grade will be. *The Second Path* is a literature review. The second draft will present an annotated bibliography summarizing 8 to 10 journal articles in the problem area. The final draft will be a summary of the research in the problem area where the student identifies strengths and weaknesses of previous research. This summary should lead the student into a research project that applies econometrics. I anticipate that you will work closely with your advisor, and the instructor, no matter the path. All term paper assignments must be completed on schedule.

Academic Integrity Policy:

University academic integrity policies will be strictly enforced and enforced with maximum penalty. Students should read and know these policies. The policies are published in the General Catalog.

Final Exam:

The final exam is scheduled for May 12, from 5:50 p.m. to 7:50 p.m. Any exceptions to this must be cleared with the instructor by May 1. The exam will be comprehensive or with a slightly heavier influence on the last portion of the course.

Course Philosophy:

My approach to teaching econometrics is to teach applications and examples. Theory is important, both economic and econometric. Forgetting your theory will lead you to make enormous mistakes. But, I believe students can be motivated to learn theory through applied problem solving. You probably chose the profession you did because of a desire to get a good job or to do something good rather than because you want to be a scholar. Further, this is a Land Grant university. We are supposed to do applied research at Land Grant universities. I want you to leave this course with a set of skills and an ability to conduct applied research using econometric methods. This goal will be addressed through the two types of graded out-of-class assignments, readings, and the material covered in lectures.

The problem sets are to expose the student to a breadth of topics. Different economic problems require different methods. Likewise, different models have different problems which must be attended to for the researcher to draw the correct conclusions from those models. Linear regression is a good tool for an applied economist to know how to use, but it is not the only tool they must know how to use.

The term paper is designed to get the student to think in depth about thesis or some other publishable research. Sometimes research problems require very simple methods. However, econometric methods have experienced technical progress. Practitioners have to develop more numerous and more complex skills. Why publishable research? Any research worth doing is worth writing about. Any written publication is worth circulation among ones peers. Furthermore, writing is thinking.

Course Outline

Topics	Reading Assignments
Introduction to Econometrics What is econometrics?	G: Introduction, 1. K: 1.
Regression Estimation Least Squares and Maximum Likelihood Goodness of Fit Model Interpretation and Use	G: 2,3,6,7,A,B. K: 2,3,5
Regression Estimation and Inference Significance Testing Model Building	G: 4,5,8,C. K: 4
Regression Basics Dummy Variables Collinearity and Influential Data	G: 13,9. K: 6,14. G: 10. K: 11,13.
Exam 1	
Serial Correlation Testing, Consequences, Correction Generalized Least Squares	G: 12. K: 8.
Heteroskedasticity Testing, Consequences, Correction Maximum Likelihood Models	G: 11. K: 8.
Dynamic Models Lagged Dependent Variables, Distributed Lags	
Panel Data Fixed and Random Effects	
Exam 2	
Nonlinear Models and Maximum Likelihood Estimation	
Probit, Logit, and Tobit Estimation and Interpretation	
Simultaneous Equations Identification 2SLS and 3SLS	
Time Series Autoregressive and Moving Average Processes Stationarity and Co-integration	

**COLORADO STATE UNIVERSITY
DEPARTMENT OF AGRICULTURAL & RESOURCE ECONOMICS**

Survey

**Agricultural & Resource Economics / Economics 535
Applied Econometrics**

Spring 2008

Name: _____

Department and Degree Sought: _____

Time in Program: _____

Previous Course Work (List graduate or highest level undergraduate courses):

Agricultural Economics: _____

Economics: _____

Statistics: _____

Mathematics: _____

List statistical and spreadsheet software with which you are familiar:
