

EC408 - Econometrics

Pedro de Araujo

Palmer 230 - Block 1 - Fall 2010

CONTACT INFORMATION	<i>Office:</i> Palmer Hall 101B <i>Phone:</i> (719) 389-6470 <i>E-mail:</i> Pedro.deAraujo@coloradocollege.edu <i>Course Webpage:</i> http://faculty1.coloradocollege.edu/~pdearaujo/ec408.html
OFFICE HOURS	Monday to Thursday from 2:30 p.m. to 3:30 p.m. or by appointment
COURSE OBJECTIVE	<p>Econometrics is the branch of economics that develops empirical models in order to analyze relationships between economic variables present in all types of economic data. This requires a deep understanding of different estimation techniques and identification strategies.</p> <p>The objective of this course is, therefore, to introduce you to the basics of estimating and interpreting econometric models of different types of economic data. In order to achieve this objective, you will be exposed to both theory, which will require some mathematical derivations, and applications, which will require the use of the software Stata. We will also use Excel in some cases.</p> <p>Another goal of this course is to get you prepared to properly analyze the data you will be using for your Senior thesis. And, in order to achieve this, you will be required to write a 4-page paper on the topic you chose for your thesis project.</p>
COURSE STRUCTURE	<p>There will be 2 main components to this course. First, we will learn the theoretical foundation of every model we estimate. Second, we estimate these models using Stata.</p> <p>We will meet every day in Palmer 230 from 9:15 a.m. to 12:15 p.m. and at least twice a week in the afternoon from 1:15 p.m. to 2:15 p.m. in computer lab 2 in Palmer 020 (basement). Hence, you should not schedule any extra-curricular activity until after 2:30 p.m. on week days.</p> <p>The theoretical portion of the course will be taught in our classroom in the mornings. This part of the course will be devoted to building the foundations for properly analyzing economic data. The applied portion of the course will be taught in both our classroom in the mornings and the computer lab in the afternoons. This is a very important aspect of this course as it will give you hands-on experience with estimating models in Stata.</p>
REQUIRED TEXTBOOK	Wooldridge, Jeffrey M.: "Introductory Econometrics: A Modern Approach," South-Western Cengage Learning, 4th ed., 2009

OPTIONAL TEXTBOOK Cameron, Colin A. and Trivedi, Pravin K., "Microeconometrics Using Stata," Stata Press, 1st ed., 2009

COURSE Three exams - 18% each
ASSIGNMENTS AND WEIGHTS Three problem sets - 10% each
4-page paper - 10%
Quizzes - 2% each

GRADE DISTRIBUTION	A	100-94	B	86-81	C	73-68	D	60-55
	A-	94-90	B-	81-77	C-	68-64	NC	55-0
	B+	90-86	C+	77-73	D+	64-60		

EXAMS All exams are take-home, open-book-open-note. There will be a theoretical and an applied portion to all exams. The theoretical portion of the exam will test your understanding of econometric theory requiring proofs and derivations. You will not be required to use any statistical software for this portion of the exam. The applied portion of the exam will test your understanding of data analysis and you will be required to use Stata for this portion of the exam.

The first 2 exams will be posted no later than 5 p.m. on the Monday of the second and third weeks of the block and will be due the following Tuesdays at 5 p.m.. The third exam will be posted no later than 5 p.m. of the last Tuesday of the block and will be due on Wednesday at noon.

All exams are to be taken individually and no outside help apart from the textbook and your notes is permitted.

PROBLEM SETS There will be 3 problem sets throughout this block. Each problem set can be completed in groups of no more than 4 students. I strongly encourage you to work in groups. For each problem set, you will have at least a couple of days to finish it.

QUIZZES There will be 3 unannounced quizzes throughout this block. Questions can cover the material taught up until the day of each quiz.

4-PAGE PAPER There will be one 4-page paper to be turned in at the end of the block. The topic of the paper should be the topic you chose for your Senior project. If you are not writing a Senior thesis, you should pick a topic that interests you. This is mainly an exercise designed for you to get a jump start on your thesis and learn how to write empirical papers. One of the most difficult aspects of writing any paper is coming up with an answerable question. Sometimes your question is good, but there is no data to help you answer it. You should take the time during this block to find enough data that allows you to implement an empirical model to answer the question you posed.

Your paper should contain an introduction describing your question and why it is important, a literature review relating your paper to existing literature on the topic, an empirical model, a data section, and data analysis or at least a description of how you will estimate your model in case you do not have all the data yet. All papers should be 12 font, 1.5 spacing, and not exceed 4 pages.

TENTATIVE
COURSE
OUTLINE

Week 1:

Cross-Sectional Analysis:

Simple Linear Regression - chapter 2

Multiple Linear Regression: Estimation and Inference - chapters 3 and 4

Week 2:

Cross-Sectional Analysis cont.:

Exam 1

Multiple Linear Regression: Binary regressors, diagnostics, and further issues - chapters 6, 7, and 8

Time Series Analysis - chapter 10

Week 3:

Exam 2

Time Series Analysis cont. - chapter 11

Limited Dependent Variable Models - chapter 17

Panel Data Models - chapters 13 (if time permits)

Week 4:

Instrumental Variables - chapter 15 (if time permits)

Exam 3

DUE DATES IN
CHRONOLOGICAL
ORDER

Problem Set 1 - Monday, September 13

Exam 1- Monday, September 13

First Draft 4-page paper (optional) - Thursday, September 16

Problem Set 2 - Monday, September 20

Exam 2 - Monday, September 20

Second Draft 4-page paper (optional) - Thursday, September 23

Problem Set 3 - Monday, September 27

Final Draft 4-page paper - Tuesday, September 28

Exam 3 - Tuesday, September 28

ATTENDANCE

Attendance is not mandatory; however, do not expect me to cover material taught in class during office hours if you were not present for that particular day unless you have proper documentation justifying your absence.

CHEATING

For every assignment in this course you must follow CC's honor code. If you have not yet done so, I encourage you to read the honor code, which can be found at the Pathfinder under Honor Council Constitution. The penalty for cheating in this course is a final grade of no credit (NC).

DISABILITY

If you have a disability that requires accommodation for this course, please see

me by Wednesday, September 8, so that your needs are appropriately met. If you have not already done so, you will need to register with and get the appropriate paperwork from the Disability Services office (227-8285). The Disability Services office is located in the Learning Commons of Tutt Library.