University of Colorado at Boulder
Department of Economics
Econ 4848 - Applied Econometrics
Professor Carlos Martins-Filho

O ce. Economics Building 105.

Meetings. TR 12:30 PM - 1:45 PM, HUMN 1B45.

O ce hours. M 10:00 AM - 12:00 PM. For appointments email carlos.martins@colorado.edu.

Prerequisites. Successful completion of ECON 3818 and ECON 3070 (recommended).

Course description and objectives. The main objective of this course is to equip you with the knowledge and tools necessary to conduct empirical research using basic econometrics. To that end we will:

1. summarize, review and extend the classical linear regression model

2. explore various sources of economic data

3. introduce you to the basic features of a data management and statistical software called Stata.

By the end of the semester you will be able to carry out an empirical project that addresses a relevant social or economic issue using regression analysis and real data.

Grades. Your course grade will be determined by six homework sets, an empirical project and a nal exam. The homework sets will be posted on the teaching portion of my webpage

http://spot.colorado.edu/~martinsc.

The table below lists all evaluations, provides dates, and points.

Evaluation	Points	Date and time
homework 1	3 points	available 01.22 and due 01.28 by 1:45 PM
homework 2		
		available 03.05 and due 03.11 by 1:45 PM
homework 5	3 points	available 03.19 and due 04.01 by 1:45 PM
homework 6	3 points	available 04.09 and due 04.15 by 1:45 PM
empirical project	9 points	due 04.29 by 1:45 PM
nal	6 points	05.05, 1:30 PM - 4:00 PM

Textbook.

Wooldridge, J., 2009, *Introductory econometrics.* South-Western Cengage Learning, OH.

Software. Stata is available in the computer laboratory in the basement of the Economics Building and in Humanities 1B45. Visit http://webdata.colorado.edu/labs/map/ for a list of computer laboratories and available software. If you wish to purchase Stata, visit

http://www.stata.com/order/new/edu/gradplans/gp-campus.html.

As a student in the university of Colorado you will be able to purchase Stata at a discount through GradPlan. There are multiple sources of information online about Stata. Several links to books, tutorials and examples are listed on the teaching portion of my webpage. A particularly useful book is,

Baum, C. F., 2006, *An introduction to modern econometric using Stata.* Stata Press, College Station, TX.

Topics and readings.

Chapters and sections are from the textbook. Handouts are available from my webpage in PDF format.

1. a) The nature of econometrics and economic data: chapter 1 and handout called **Econometrics**; b) Stata Handout (SH) 1.

2. The simple linear regression model and the least squares estimator: chapter 2, sections 2.1, 2.2, 2.3, 2.4 and SH2.

3. Multiple linear regression (MLR) model and the least squares estimator: chapter 3, sections 3.1, 3.2, 3.3, 3.4., Appendix D, Appendix E, and SH3.

4. Hypothesis testing for the MLR model under normality: chapter 4 and SH4.

5. Data scaling, dealing with data transformations, regressor selection, goodness-of- t and prediction: chapter 6 and SH5.

6. Obtaining Economic Data: SH6

7. Regression with binary variables: chapter 7, sections 7.1, 7.2, 7.3 and 7.4. and SH7

8. Accounting for heterocedasticity: chapter 8, sections 8.1, 8.2 and SH8.

9. Functional form and regressor misspeci cation: chapter 9, sections 9.1, 9.2 and SH9.

10. Limited dependent variable models: chapter 7 section 7.5, chapter 17 section 17.1 and SH10.

Important information.

- If you qualify for accommodations because of a disability, please submit to me a letter from Disability Services in a timely manner so that your needs may be addressed. Disability Services determines accommodations based on documented disabilities. Contact: 303-492-8671, Willard 322, and www.colorado.edu/disabilityservices.

- Campus policy regarding religious observances requires that faculty make every e ort to reasonably and fairly deal with all students who, because of religious obligations, have con icts with scheduled exams, assignments or required attendance. In this class, if the two midterm, nal or homework due dates prevent/inhibit you from exercising your rights to religious observance, please inform me by August 28, 2009 so that reasonable accommodations can be made. See full details at www.colorado.edu/policies/fac

-