University of Colorado at Boulder
Department of Economics
Econ 3818-020 - Introduction to Statistics with Computer Applications
Instructor - Paulo Saraiva
Fall 2012

Oce: Econ 14
E-Mail: paulo.saraiva@colorado.edu
Class Meetings: TR 3:30pm - 4:45pm, HUMN 1B80
Oce Hours: TR 4:45pm - 6pm.
Recitation Sections: TBA
> **There will be no recitation on the rst week of class.**

General:

Economics 3818 is a one-semester course in statistics, required of economics majors. We will study basic probability and probability distributions, especially the normal distribution; and estimation and inferential statistics. This course will use R (if you do not wish to use R you may use Excel, however, Excel will not be covered in class).

Evaluation:

Evaluation	Points
Two Midterm Exams	25 points each (Oct 9th and Nov 8th)
Final Exam	40 points (Dec 20th, 7:30am - 10am)
Problem Sets	10 points

Midterm dates are subject to change. I will substitute your lowest midterm grade by the average of your recitation and lowest midterm grade, provided that this improves your nal grade. Letter grade will be assigned as follows, according to overall course score:

<60	60-67	67-70	70-73	73-77	77-80	80-83	83-87	87-90	90-93	93+
F	D	D+	C-	C	C+	B-	B	B+	A-	A

Problem sets are to be posted on Desire2Learn.

Attendance:

Attendance is not mandatory, however, it is highly recommended. I will not follow the textbook as closely as in some other courses, therefore it is important to come to class and participate in order to get a good grade in this course. Lectures are sequential in this course, so missing class and not studying the missed material before the next lecture is a recipe for disaster. *I cannot over-emphasize how important classes are in order to obtain a passing grade.*

Although attendance is not mandatory, you are responsible for any announcement or instructions given in class.

Prerequisites:

Econ 1000, or 2010 and 2020 and either Econ 1078 and 1088 or equivalent math courses. The latter prerequisites are strictly enforced, if you are listed as not meeting the course prerequisites, you must show me that you have the appropriate math equivalent.

We will be using di erentiation and integration.

Homework: I will post 3 homework on Desire2Learn. The due dates will be clear in the homework le when posted. I will also post on Desire2Learn a pdf answer sheet for you to submit your homework answers. I do not accept homework that is not in the answer sheet format. For homework, I will grade only your answer, as the answer sheet suggests.

Exams: None of the exams are cumulative, not even the nal. In the exams you must show the work for all non true or false questions. Answers, even if correct, without the appropriate \work" and calculations shown will be given zero points. This does not mean you have to show me how to add and multiply, what it means is that if the question requires you to make some mathematical steps, those steps should be shown in your answer. There may be questions on exams that requires a written explanation, therefore such explanations must be shown in order for you to get full credits in these questions. Some exams might have bonus questions. No one will obtain more than 100% in an exam. For the nal, I will give you in class a list of atrocities. If you write any of these atrocities or anything resembling them, you will receive -1% for each time you write it. If you obtain negative points on the nal, these points will be subtracted after the bonus question is factored in. For example, suppose you write ve atrocities, but you answer 90% of the exam correctly. Furthermore, assume you answer correctly the bonus question and suppose it is worth 20%. Your grade after the bonus question is 100%. However, after the atrocity deduction, you would get a nal exam grade of 95%. No one will obtain less than 0% in any exam.

Textbook:

Amemiya, T. (1994) *Introduction to Statistics and Econometrics*. Harvard University Press, Cambridge, MA.

Students are required to acquire the above textbook.

Other helpful textbooks:

Ashenfelter, O., P. Levine & D. Zimmerman (2006) *Statistics and Econometrics: Methods and Applications*. John Wiley & Sons, New York, NY.

Bradley, T. (2007) *Essential Statistics for Economics, Business and Management.* John Wiley & Sons, New York, NY.

Johnson, R. & G.K. Bhattacharyya (2010) *Statistics: Principles & Methods* (6th edition). John Wiley & Sons, New York, NY.

Spanos, A. (1999) *Probability Theory and Statistical Inference: Econometric Modeling with Observational Data.* Cambridge University Press, New York, NY.

Chiang, A. & K. Wainwright (2005) *Fundamental Methods of Mathematical Economics.* McGrall-Hill, New York, NY.

Course outline:

Probability and random variables (about 2=3 of the course)

Estimation and Inference (about 1=3 of the course)

Miscellaneous:

Hardware and Software: R will be used for some data analysis. Although not required, there are many excellent R manuals available. R is supported in many of the campus computer labs, including the lab in the basement of the Economics building. R is an open source program which

Office hours: I will not give away answers to problem sets during office