University of Colorado at Boulder
Department of Economics
Econ 3818-100 - Introduction to Statistics with Computer Applications
Instructor - Paulo Saraiva
Summer 2013

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O ce: Econ 14
Class Meetings: MTWRF 9:15am - 10:50am, Econ 117
O ce Hours: MTWR 10:50am - 12:20pm.

course. Lectures are sequential in this course, so missing class and not studying

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

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:

1. Set Theory

   Unions and Intersections

   De Morgan's Law

   Functions

2. Probability

   Axioms of Probability

   Combination and Permutation

   Conditional Probability

   Independence

   Bayes Theorem

3. Random Variables

   Distribution Function

   Discrete Random Variable and Probability Mass Functions

   Continuous Random Variables and Density Functions

   Conditional Distributions

   Independence of Random Variables

4. Moments and Expectations

   Mean, Mode and Median

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 can be downloaded in http://cran.r-project.org/ . You may use other softwares, such as Excel, however, I will not cover Excel in this class. In addition to this you will need a calculator for the exams.

Visit http://webdata.colorado.edu/labs/map/ for a list of computer laboratories and available software.

Special accommodations:

Refer to http://www.colorado.edu/disabilityservices .

E-Mail Policy: I will not answer questions about statistics via email. Those emails with questions about statistics will be ignored. If you should have any questions, please come to o ce hours or ask during class as the material is being presented. I will not answer any question on an email in which the answer can be found on the syllabus. I do not repeat in class announcements in emails.

Participation: Participation is highly recommended. No question shall be labeled \stupid" and I will not tolerate disrespect to one's question, answer or observation.

O ce hours: If you wish to use o ce hours you must inform me you intend to do so. I will not give away answers to problem sets during o ce hours. During o ce hours I will answers speci c questions about the material. However, if the question is of the type, \How do I answer this question of the problem set", and you have not yet handed in the problem set, I will not answer it.

Make up work: There is no make up exams.

Late work: Work handed in late will have 30% taken away from it. After that, 10% will be marked o for each day the work have not been handed in.

Let-me-google/D2L-that-for-you questions: I reserve the right to ignore any question that can be answered by careful reading of this syllabus or any distributed material. For example, I reserve the right to not answer questions of the type: \When are your o ce hours?"; \Where is your o ce?"; \Where can I get the software R?"; \Is the nal exam cumulative?"; \When is homework 1 due?" etc.

Enjoy!