STAT 992
Computational Statistics
Spring 2015

Instructor

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Suggested readings

Bloomfield, V. (2014). *Using R for Numerical Analysis in Science and Engineering*. CRC Press. (Required book for course)

Chambers, J. (2008). *Software for Data Analysis: Programming with R*. Springer. http://library.unl.edu/record=b4155321

Davison, A. and Hinkley, D. (1997). *Bootstrap Methods and their Application*. Cambridge University Press.

Gentle, J. (2009). *Computational Statistics*. Springer. http://library.unl.edu/record=b4155919

Givens, G. and Hoeting, J. (2013). *Computational Statistics*. Wiley. http://library.unl.edu/record=b4345733

Jones, O., Maillardet, R., and Robinson, A. (2014). *Introduction to Scientific Programming and Simulation Using R*. CRC Press.

Matloff, N. (2011). *The Art of R Programming*. No Starch Press. (I can give you a PDF)

Robert, C. and Casella, G. (2010). *Introducing Monte Carlo Methods with R*. Springer. http://library.unl.edu/record=b4155774

Wickham, H. (2014). *Advanced R*. CRC Press.

Prerequisites

STAT 883, STAT 971, and a good amount of programming experience with R

Grades

Grades will be based on the total number of points earned out of the total number of points possible. There will be graded assignments and some combination of graded presentations and/or exams. The grading scale is:

A	B	C	D	F
≥90% and ≤100%	≥80% and <90%	≥70% and <80%	≥60% and <70%	<60%

where + and – letter grades are 2.5% from the above cut off points. For example, A^- is 90-92.5% and B^+ is 87.5-90%.

You are required to turn in all assignments electronically, and all assignments need to be completed

in Word documents. An assignment completed in an unreadable or unprofessional manner will be returned to the student. The assignment may be redone and turned in again; however, points will be deducted from the grade. No late assignments will be accepted.

Statistical software

The statistical computing software package R will be used extensively to perform calculations in this class. R is available for free from www.r-project.org. The specific link to download the Windows version is http://cran.r-project.org/bin/windows/base.

Final exam class period

The final exam class period is 10:00AM to 12:00PM on Thursday, May 7.

Additional statements

Please see the online syllabus supplement for additional information that is required to be part of all syllabi at UNL.