

STAT 950
Bootstrap Methods and their Application
Fall 2012

Instructor

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Textbooks

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

There are many other books on the bootstrap! I recommend investigating others as needed. The best of the other books is Efron and Tibshirani's (1993) *An Introduction to the Bootstrap*. Other books include Hall's (1992, 1997) *The Bootstrap and Edgeworth Expansion* which is more theory based than our book and Lunneborg's (2000) *Data Analysis by Resampling: Concepts and Applications* which is written at a lower level than our book.

Prerequisites

STAT 883, STAT 870 or 970, prior experience with R software

Grades

Grades will be based upon the following:

	Test #1	Test #2	Final Exam	Projects, Quizzes, etc...
% of grade	25%	25%	20%	30%

Grading Scale:

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

+ 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 projects electronically, and all projects need to be completed in Word documents. A project completed in an unreadable or unprofessional manner will be returned to the student. The project may be redone and turned in again; however, points will be deducted from the grade. No late projects, quizzes, etc. will be accepted.

I recommend completing the projects in groups. If you work in a group, all group members are expected to participate equally and have a complete understanding of all components for it. I will lower a student's project grade if he/she does not abide by this group work policy.

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 cran.r-project.org/bin/windows/base. All projects must be completed using R unless otherwise announced.

Class recordings

All classes will be recorded during the semester. These recordings will be posted to the Internet for students in this course and others not enrolled in this course to use for educational purposes. Please do not abuse the availability of these recordings by not coming to class! I recommend using the recordings as a way to review material discussed during class and as a back-up if extenuating circumstances prevent you from attending class.

Final exam

The final exam is scheduled for 1:00-3:00PM on Tuesday, December 11. All students must take the exam on this day and time.

Expectations of students

Students are expected to read the corresponding sections of the textbook. This can be a difficult book, and it may take more than one read through to understand the topics discussed. Outlining the textbook is one way to help with your reading. Also, students are responsible for all material in the lecture notes unless otherwise stated during class. I recommend re-running all of my R programs one line at a time to make sure you understand their content. The bootstrap would not be very useful without a computer, so there will be strong emphasis in this class on computer work.

UNL Americans with Disabilities Act statement

Students with disabilities are encouraged to contact the instructor for a confidential discussion of their individual needs for academic accommodation. It is the policy of the University of Nebraska-Lincoln to provide flexible and individualized accommodation to students with documented disabilities that may affect their ability to fully participate in course activities or to meet course requirements. To receive accommodation services, students must be registered with the Services for Students with Disabilities (SSD) office, 132 Canfield Administration, 472-3787 voice or TTY.