

Math 3070 - 3 Applied Statistics I *Syllabus* May 25, 2011

Place/Time

MWF 9:40 - 10:30 AM in BEH S 114

Instructor:

A. Treibergs, JWB 224, 581-8350.
E-mail: treiberg@math.utah.edu
Web page: <http://www.math.utah.edu/~treiberg/M3074.html>
Office Hours: 11:45-12:35 MWF (tent.) & by appt.

Prerequisites:

"C" or better in MATH 1220 OR MATH 1250 OR MATH 1270 OR AP Calculus
BC score of at least 4

Texts:

Jay L. Devore, Probability and Statistics for Engineering and
the Sciences 8th ed., Brooks/Cole, 2012.
ISBN-13: 978-0-538-73352-6
ISBN-10: 0-538-73352-7

John Verzani, Using R for Introductory Statistics,
Chapman & Hall/CRC, 2005.
ISBN-13: 978-1-584-88450-7
ISBN-10: 1-584-88450-9

Grading

Lab:

Students will meet in the computer lab once a week for
two hours. Students must pass the lab to pass the course.
Most students manage to easily complete the lab assignments
during the lab. Or students may access the computer at other
times from the Mathematics Center.

Homework:

You will be asked to write up and hand in homework problems weekly.

Midterms:

There will be three full hour midterm exams on Sept. 14, Oct. 19 and
Nov. 16. Questions will be modifications of homework problems.

Quizzes:

There will be four 15 minute quizzes on Aug. 31, Sept. 28, Nov. 2 and
Nov. 30. For the quizzes you will be responsible for the material
covered from the day of the previous exam through the class meeting
preceding the quiz. No makeup quizzes will be given for any reason.

Final Exam:

Mon., Dec. 12, 8:00 - 10:00 AM in BEH 114. Half of the final
will be devoted to material covered after the third midterm exam. The
other half will be comprehensive. Students must pass the final to pass
the course.

Course Grade:

Based on the best two of three midterm scores 30%, best three
of four quizzes 15%, final 25%, homework 20% plus lab 10%.

Tutoring Center:

Free tutoring is available in the T. Benny Rushing Mathematics
Center, located between LCB and JWB. Normal hours M-Th 8:00 am -
8:00 pm, Fri 8:00 am-4:00 pm.

Withdrawals:

Last day to drop a class is Aug. 31. Until Oct. 21 you can withdraw
from the class with no approval at all. After that date you must
petition your dean's office to be allowed to withdraw.

ADA:

The Americans with Disability Act requires that reasonable
accommodations be provided for students with cognitive, systemic,
learning and psychiatric disabilities. Please contact me at the
beginning of the quarter to discuss any such accommodations you may
require for this course.

Course Content:

This is the first course in a sequence of two that offers a
comprehensive introduction to the concepts of probability and
statistics. We begin by quickly presenting some ways to organize and
present data used in descriptive statistics (Ch. 1.) How well the
population can be described from estimates made from samples drawn
from that population depends on notions from probability. We consider
laws of probability, random variables (one- and two-dimensional),
common distributions, sample statistics and the Central limit
Theorem (Ch. 2-5.) Finally we develop the basic techniques of
inferential statistics, point estimates, confidence intervals and
hypothesis testing (Ch. 6-9.) Both the theory behind statistical
decision making and its practical application to many different
areas will be examined in this course, so that students may
appreciate the use of statistics in their professional and personal
lives. The course material will be based on Chapters 1-9 of the text
and corresponding material from the lab manual.