Course Syllabus

STAT 302:
Statistical Software and its Applications

Winter 2014

Instructor: Fritz Scholz
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Office hours: TTH 1:00-2:00 or by appointment

Course Website:

Class Schedule: TTh, 10:30-11:50am in Thomson 101.

Course Overview: This course is an introduction to data structures, data import and export, some programming, and basic analyses in statistical computing packages. This term, the course will focus on using R for data analysis, graphics, and simulation, but we will also work with SAS. We start by introducing the typesetting system \LaTeX, widely used in the scientific community. This course is intended to precede other applied statistics courses so that students enter these courses with a reliable common background in statistical software use. Such courses would deal with the more sophisticated analyses not covered here.

Prerequisites: Basic statistics (either STAT 311, STAT 390 or equivalent).

Course Format: I will lecture from slides, interspersed with live computer demonstrations, and occasionally with in class exercises, for which you need your own laptops. Lecture slides will be posted on the class web site, as are other course materials. The fact that the slides are posted should not invite you to skip class. There will be homework assignments, to be completed using \LaTeX, a midterm, and a final.

Objective: The main point of this course is to give the student a working start with the covered software \LaTeX, R, and SAS. You can spend a lifetime mastering each.

Grades: The midterm will count for 20%, HW for 30%, final for 40% and 10% for effort/attendance.

Suggested Textbooks:
The first two are available as e-books via the UW library system.

- de Vries, A. and J. Mey (2012), R for Dummies, Wiley. (Basic but comprehensive).