SYLLABUS for STAT 372
Data Analysis Tools

Class: MWF 8:00-8:50am in E203 Engineering

Instructor: Mary Meyer, Associate Professor, Statistics Department.

Office Hours: MWF 9:00-9:50am or by appointment; 212 Statistics Building. *Appointments on MWF only; email any time.*

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Class information, homework solutions, and data sets will be posted to my department web page:

`http://www.stat.colostate.edu/~meyer/stat372.htm`

Grading

Bi-Weekly Homework Sets (first due September 4th): 30%
Exam 1, In class, September 25th: 20%
Exam 2, Hand out November 2nd, due November 6th: 20%
Take-home Final: 30%

Homework Policies: Students are encouraged to work together on the homework problems, however, the write-up of the solutions must be done independently. Note that each homework set is a substantial proportion of the total grade. If you know ahead of time that you will not be in class on a day that the homework is due, please turn it in early. For unforeseen circumstances such as illness, let me know via phone or email as soon as possible that the homework will be late, so I can inform my grader. Unexcused late homework assignments may be turned in up to one week late, with a 30% penalty.

Exam Policies: The first exam is in class, open books, open notes but no working together. The second exam is take-home, open books, open notes but no working together.

Text: *The Statistical Sleuth*, by Ramsey & Schafer.

Software: We will be using the `R` project for Statistical Computing. This a programming language and graphical package as well as statistical software. To download (free!) go to `http://www.r-project.org/` Documentation can also be found on this site.

Course Description: The semester will focus on data analysis using regression and analysis of variance. These are the building blocks of statistical data analysis! Many real data sets (and some made-up ones) will be used during the semester. The following steps of data analysis will be emphasized:

1. Translating a "word problem" into a statistical model, identifying the purpose of the analysis, the variables, parameters, and hypothesis to be tested.
2. Performing the appropriate analysis via the `R` programming language.
3. Presenting the results and interpreting in the context of the problem!

Step two is the easiest!!

I do not grade on a curve; the grading scale is:

- A+ = 97-100
- A = 92-96
- A- = 90-91
- B+ = 88-89
- B = 82-87
- B- = 80-81
- C+ = 78-79
- C = 70-77
- D = 60-69
- F = 0-59