STAT 509: Statistics for Engineers

Spring 2024, Section 002

Class Meetings
Lectures: MWF 10:50-11:40 am in Carolina Coliseum 2009

Instructor
Ryan Stutz
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Office Hours: by appointment
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Teaching Assistants

Office:
Office Hours:
Email: Homework related inquiries should be sent to the primary teaching assistant.

Purpose
To give students a basic understanding of probability and statistics as well as exposure to applications in engineering. Topics include elementary probability, discrete and continuous random variables (distributions), model fitting (MLE), statistical inference (confidence intervals and hypothesis testing), ANOVA, and linear regression.

Prerequisites
Math 142 (Calculus II)

Computing
We will use R. The R software is available for free at www.r-project.org.
The "An Introduction to R" manual which is available at this site (on the left, under "Manuals") is an excellent resource.

Materials
Each student will need a *basic* scientific calculator for exams; graphing calculators are not permitted. You are encouraged to bring your laptop to class for in-class exercises.

Grade Overview
The course will be graded out of a total of 100 points.
Standard 10-point grading system with "+" available (65+,75+,85+)

Homework
There will be weekly homework assignments which cumulatively are worth 15 points. You are encouraged to work together on these assignments. Individual submissions required. It is your responsibility to ensure that all assignments are legible, properly attached, and properly submitted.

Research Project
The purpose of this project is to give you hands-on experience with all aspects of data analysis. This is a group project and is worth 10 points.

Midterm Exams
There will be 2 midterm exams each worth 25 points. Academic integrity violations will be dealt with severely.

Final Exam
There will be a final exam worth 25 points. If the score is better, the final exam can replace one or both midterm exams. Make-up final exams will be considered only in extreme circumstances. Academic integrity violations will be dealt with severely.

Exam Schedule

Midterm 1	Wednesday 2/14
Midterm 2	Wednesday 3/20
Final	Monday 4/29 9:00 am