

# STAT 509: Statistics for Engineers

Fall 2022, Section 003

## Class Meetings

Lectures: MWF 12:50-10:30 pm in Petigru 217

## Instructor

Ryan Stutz

Office: LeConte

Office Hours: by appointment

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## Purpose

To give students a basic understanding of probability and statistics as well as exposure to applications in engineering.

## Prerequisites

Math 142 (Calculus II)

## Topics covered

Elementary probability, discrete and continuous random variables (distributions), model fitting (MLE), statistical inference (confidence intervals and hypothesis testing), ANOVA, linear regression, and factorial experiments.

## Computing

We will use R. The R package is available for free at [www.r-project.org](http://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.

## Calculator

Each student will need a scientific calculator.

## Grade Overview

The course will be graded out of a total of 100 points.

Standard 10-point grading system with “+” available (67+, 77+, 87+)

## Attendance

You are required to attend at least 80% of lectures. Doing so is worth 10 points.

## 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.

## 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 comprehensive final exam worth 25 points. If the score is better, the final exam can replace one or both midterm exams. Students with an A going into the final exam may be exempt. Make-up final exams will be considered only in extreme circumstances. Academic integrity violations will be dealt with severely.

## Extra Credit

There will be two extra credit opportunities worth a total of 5 points. You are encouraged to work together on these assignments.

## Student Disability Services

If you qualify for accommodations because of a disability, please contact the Office of Student Disability Services so that proper arrangements can be made. You may contact them at 803-777-6142, Close Hipp, Suite 102, or <http://www.sa.sc.edu/sds>.

Midterm 1	Wednesday 9/28
Midterm 2	Wednesday 11/2
Final	Monday 12/5 12:30 pm