

PSTAT 10 Syllabus

Summer Session A 2022

Welcome

This course is designed for students intending to major in Statistics and Data Science, Actuarial Science, or Financial Mathematics and Statistics.

We will explore many facets of the data science workflow through the R programming language. Through solving coding challenges, the student will be prepared to explore the R ecosystem on his own. These are the first steps required to apply for data science jobs.

Instructor

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Please call me “Robin”.

Teaching Assistants

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Course Description

- Fundamentals of programming with the R language.
 - vectors, data frames, control flow, functions
- Exploratory data analysis
 - summary statistics, plots, `dplyr` and the `tidyverse`
- Applied probability
 - probability through simulation, continuous and discrete random variables
- Database systems
 - principles of database design, SQL `select/where/join`
- Advanced topics depending on time and interest

Assessment

- Lab worksheets 20%
- Homework 50%
- Final Exam 30%

The final exam will be an 80 minute paper exam taking place during the last lecture on Thursday, 7/28/22 starting at 11:00AM.

Grading

Scores above 90% will receive at least an *A-*. Other cutoffs will be determined at the end of the class.