

Final Project Instructions

There are two goals for the final project. First, to teach you how to learn about and apply new statistical models beyond those covered this semester. We have learned some of the most important techniques and general approaches, but there are hundreds of other tests and models beyond those that could fit into any course. However, you should have the skills now to be able to teach yourself new techniques with a little bit of work. Secondly, while we will still will not come even close to covering all the models you might see, watching all of the other presentations will give you better sense of the diversity of different models that extend from the core ones we learned in class.

We will be selecting presentation times and topics in class on Wednesday, March 27th. The main outcome of the project will be a 10 minute presentation to the class on one of the final days of the semester. While the specific format is up to you, there must be some sort of digital presentation that is detailed enough to follow along without your presentation. I recommend creating slides, an R Markdown document similar to the notes from class, or a set of LaTeX notes similar to the handouts. The best format will depend on your topic and level of comfort with each of these technologies. You will need to hand in a PDF version of whatever format you choose; this will not be published on the website, but will be accessible to others in the class.

Your presentation should cover at a minimum the following aspects of your topic: (1) general motivation for the idea/model/approach, (2) a mathematical description of the model, (3) one or more authoritative references justifying the model, (4) an R package or function that implements the models, and (5) an example applying the model to a real, appropriately selected dataset. You do not need to show proofs or derivations of why the method works, but can include these details (or a sketch of them) if the result is relatively short.

Grades will be largely determined based on effort, polish, and an earnest attempt at the completion of all aspects of the assignment as listed above. Start early, make use of the class time to work on the project, and practice your presentation and you will do great. Note that, out of respect for your fellow classmates, everyone **must attend and be on-time** for all presentation days.