Welcome to R Bootcamp!

A hopefully more-or-less painless introduction to R

Fall 2020

- **When?** Saturday September 12 and 19 2020
- **Where?** Virtual! (links to videos and Zoom will be sent via email)
- **What to prepare?** You will need your laptop computer, with R and RStudio installed prior to starting the bootcamp (see links).

Facilitator

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About

The statistical programming software 'R' is one of the fundamental tools for modern data exploration and analysis, and a basic ability to use R (for data processing, statistical analysis, simulation modeling and production of high-quality figures) will make upcoming classes, research, and graduate school less intimidating.

This 'bootcamp' consists of a series of short(ish) submodules, each of which covers a particular skill (e.g., reading in data, writing functions). Each submodule will consist of a set of lectures and demos (worked examples), followed by hands-on activities. The main goal of this workshop will be to ensure participants have enough proficiency and confidence with data operations and programming in R to engage in productive, self-directed learning and problem-solving. The workshop is primarily intended for students with little prior experience with R, but may be useful for others as a refresher- especially the latter portion, which will delve into more advanced topics. The first modules will focus on R syntax, data management (loading data, writing to file), data summaries and visualizations, R packages (loading, getting help), and basic statistical operations. The second set of modules will focus on some more advanced programming operations (loops, functions, debugging etc.), more advanced graphical visualizations and spatial analyses, and working with large data sets. We may not get through all modules in the allotted time, but participants are encouraged to work through the remaining material on their own.

All code will be available as scripts that you can download from this website (at the top of each module page on this website) and load in RStudio. That way you won't need to constantly copy and paste from the web!

Before we get started...

Before we dig in and get started with the modules, you should have installed R and RStudio. Here are some links to help you get started:

Download and install R
Download and install RStudio (use free version!)

Also, it can be very helpful to print out an R 'cheat sheet' and bring that with you (we will also have some available at the workshop!). Here are some links:

Base R Cheat sheet
R reference card

Okay, now we're ready to go!

–go to first module–