

R Basics Bootcamp

A Self-Guided Introduction to R and RStudio

This first set of slides introduces the R Bootcamp

Objective of this Basics to R Bootcamp

- To gain more familiarity with R
 - Exposure to R, if no prior experience
 - A refresher and update of R version, if it's been awhile
 - Learn approaches to R, example: if not used R Markdown
- Prepare for material for a STAT or STAA course
 - The R Bootcamp should be completed before first class day
 - Statistics course material focus on statistical concepts, not R coding
 - Bootcamp is not comprehensive for coding in R, just a head start
 - **Do not aim for mastery of material presented here!**
 - Primary goal is simply to get R and RStudio up and running
 - Content for general exposure to various functions, plotting, packages
 - If you keep getting errors, just skip it!

Self-guided in Canvas

- This R Basics Bootcamp program is intended to be self-contained
- Instructor is not available for questions of Bootcamp material
 - An intentional component to this Bootcamp is learning to seek answers on own
 - Resources can also be found within Canvas
- Technical issue with the Bootcamp (e.g. broken Canvas links, video malfunction, or missing content)
 - You may email course instructor or Ramtech depending on the type of issue
 - If new to Canvas please see : <https://canvas.colostate.edu/student-support/>

Four main components to Bootcamp

Bootcamp Material Provided in “pages” of Canvas

- Follow links to each component of module

1. There are 8 topics of pdf slides

- Consider printing 3 or 4 slides per page to take notes
- Each topic should be covered sequentially (after each prior topic is completed)

2. Short videos that accompany slides

- Echo360 is part of CSU and Canvas which are viewed within your browser
- Videos are provided according to topic

3. R Markdown files to help guide coding (more on this in next set of slides)

4. Exercises

- **NOT Graded and not for course credit!!**
- Represented as Quizzes in Canvas

Topics of R Basics Bootcamp

1. Getting Started with R and RStudio
2. Basics of Coding in R
3. Basics of R Packages
4. Basics of Importing Data into R
5. Basics of Using Data in R
6. Basics of Plotting in R
7. Using R for Coursework
8. Various Useful Functions and Packages

Proceeding Through Bootcamp

- An outline of course material is provided (in Other Resources page)
- Start at beginning and sequentially complete Bootcamp
- For each Topic
 - Click on each pdf (as you did for this one) to download and view
 - View video for narrative and follow screen (may minimize instructor window)
 - Download R Markdown file and save to an appropriate folder
 - Either with slides or separate R Code Example folder
 - Later topics require data files to be downloaded from Canvas
 - Data files will be imported into R
 - The location and path will be important (consider shorter path and/or folder names)
 - Exercise (Quiz) also may have accompanying R Markdown and data files