

STRI Introduction to R 2020

Instructors

Ernesto Bonadies, ernestobonadies@gmail.com

Tauana Cunha, CunhaT@si.edu

Bruno De Medeiros, DeMedeirosB@si.edu

Lee Dietterich, lee.dietterich@gmail.com

Goal

The goal of this course is to provide students with an introduction to basic functionality in R, including installing the program and packages, reading, manipulating, graphing, and analyzing data, and writing simple functions and programs.

Format

We will present one-hour lectures/tutorials by Zoom on Wednesdays at 10:00am. Tutorials will contain extra exercises to practice on your own time. The instructors will each hold office hours by Zoom between lectures (schedule below) in which they will be available to help with the tutorials or other R questions you may have. We encourage you to work together on the tutorials as social distancing allows, and use the course Slack channel for questions and discussion. You can contact us through the course Slack channel or at our email addresses above.

Lecture Schedule (subject to change)

Wednesday, April 29, 10:00am – How R Works

Basic RStudio interface; interactive with Rmarkdown, non-interactive with scripts; creating/deleting objects; R help; data types; sequences; math and logic operators; reading/saving data files; creating/converting objects

Wednesday, May 6, 10:00am – Flow Control

Installing packages; indexing; simple functions; loops; if/else; creating functions

Wednesday, May 13, 10:00am – Graphics

Plotting functions in base R; graphical parameters; multiple panels; ggplot2

Wednesday, May 20, 10:00am – Statistical Analysis

Data exploration; analysis of variance; linear models; ordination

Office Hours

Ernesto –

Tauana – Friday 2-3pm

Bruno – Tuesday 10-11am

Lee – Monday 3-4pm