

INTRODUCTORY R WORKSHOP

August 19–23, 2024

Instructor:	Kayla Kahn	Time:	Mo: 10:45-12:00 Tu: 10:15-11:45 Wed, Thu, Fri: 10:00-11:30
Email:	kpk5494@psu.edu	Place:	369 Willard Building

Workshop Materials:

1. https://github.com/kaylakahn/r_workshop_2024

Helpful Resources:

- [R Reference Card](#)
- [The R language – a short companion](#)
- [R Tidyverse Style Guide](#)
- Rodrigues, Bruno. *Modern R with the tidyverse*. 2022.
- [The R Graph Gallery](#)
- [R Cheat Sheets](#)

Objectives: This course is primarily designed for first-year graduate students with little to no experience using R. This course is designed to give you a foundation in R that will be useful as you begin your graduate studies.

Installing R and RStudio: [Tutorial](#)

Course Outline:

Day 1: R Basics

- Operators
- Assignment
- Data Types

Day 2: Dataframes

- Reading in data
- Summary statistics
- Accessing dataframe and columns
- Subsetting and merging

Day 3: Plots

- Base R plots

- ggplot

Day 4: Control Structures

- Loops
- Conditional statements
- Simulation

Day 5: Tidyverse

- Tidyverse alternatives to day 2 code