

Introduction to R Workshop

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Workshop Goals

The primary goal of the workshop is to teach the fundamentals of R, the [widely used statistical programming language](#). This means that the workshop is most useful to students who have limited or no experience with R. Students of all experience levels are welcome, though.

Another goal is to highlight several good coding practices. The idea here is to encourage readable, transparent coding. This is important because it can improve researcher efficiency. For example, programming errors are easier to find in accessible, well-documented code. Coding readability is also important because an increasing number of researchers are replicating published studies. The general idea here is that other researchers are less likely to encounter problems with your code if they can understand it.

A third goal is to show how researchers can use R to visualize the results of their quantitative analyses. This is important given the field-wide push for graphics over tables. Plus, making plots is fun.

The workshop materials contain an R script and some example data that can be used to help with these goals.

Pre-Requisites

- R (cran.r-project.org)
- RStudio (rstudio.com)

Recommended Readings

- *The R Guide* (cran.r-project.org/doc/contrib/Owen-TheRGuide.pdf)
- *R for Data Science: Visualize, Transform, Tidy, and Import Data* (r4ds.had.co.nz)
- *Advanced R* (adv-r.had.co.nz)
- *R Packages: Organize, Test, Document and Share Your Code* (r-pkgs.had.co.nz)

Resources

- Quick R (statmethods.net)
- Google
- Stackoverflow

- DataCamp's 'Introduction to R' course (datacamp.com/courses/free-introduction-to-r)
- Chart of R colors (research.stowers-institute.org/efg/R/Color/Chart)