

Graduate School Workshop on Statistical Analysis using R

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Aims

On completion, students should know how to:

- a) install R from scratch
- b) identify and install additional packages in R
- c) import data to R in different formats
- d) manipulate data in R for use in different ways including transformations
- e) apply core statistical techniques in R to real datasets
- f) use diagnostic checks in R to identify inappropriate assumptions

Organization

Students must bring their own laptop (Windows, Mac or Linux are all fine), but do not need to pre-install any software as installation will be part of the workshop.

The workshop will be run across two afternoons in a small conference room. Students are welcome to bring their own datasets for exploration in the second afternoon, but some datasets will be provided for everyone else to choose from.

Assumed knowledge

Students will be assumed to already understand basic estimation and hypothesis testing for linear models. I will provide a downloadable textbook in advance for those who need revision.

Reference

An Introduction to R - please download this in advance to your laptop:

<https://cran.r-project.org/doc/manuals/r-release/R-intro.pdf>