Statistical Consulting Centre
Introduction to R Workshop

This course assumes participants will have no prior experience with R.

Day one

We will begin with the basics: using R as a calculator; reading in data from a file; and generating summary statistics and contingency tables.

With the basics under our belts, we will begin unveiling some of the power of R in manipulating those very large data sets too unwieldy to deal with, in the introduction of in-built R functions that provide shortcuts for performing the same operation across many columns or rows of a data set simultaneously.

Day two

We will discuss optimal visual displays for presenting information from different variable types (e.g. continuous, count, categorical, etc.) as we take an in-depth tour of generating publication-quality graphics in R. This will include:

- Boxplots, scatterplots, and bar charts, including legends
- Plots presenting information from multiple variables simultaneously
- The ggplot2 package for R, for even more sophisticated graphical displays

Finally, we will demonstrate how to use R to fit regression-type models to data.

Note: The daily schedule may vary according to the pace of the workshop.

Day 1

Session	Time	Topic
1	09:00am - 10:30am	Introduction and data import
	10:30am - 11:00am	Break
2	11:00am - 12:30pm	Clean and subset
	12:30pm - 01:30pm	Lunch break
3	01:30pm - 03:00pm	Join and reformat
	03:00pm - 03:30pm	Break
4	03:30pm - 05:00pm	Group and summarize

Day 2

Session	Time	Topic
5	09:00am - 10:30am	Graphics in **R**
	10:30am - 11:00am	Break
6	11:00am - 12:30pm	Graphics in **R** with `ggplot2`
	12:30pm - 01:30pm	Lunch break
7	01:30pm - 03:00pm	Data analysis in **R**
	03:00pm - 03:30pm	Break
8	03:30pm - 05:00pm	More data analysis