# R Training for Beginners

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# Chapter 1

# Overview

A collection of training materials for an introduction to the R statistical computing programming language. This is aimed at beginners, with the modules being fairly short.

For more in-depth explanations and descriptions, I'll often refer to other training materials or documentation that will explain things at a greater level.

Alongside each module is a Xaringan presentation. This can help for those looking to learn, but can also function as a first step for those looking to begin teaching R but who don't have the time to fully develop their own training modules. Hopefully, all the topics covered in the text version will be covered in the presentation and vice versa, so if you learn visually then you can rest easy knowing that you're not missing out!

# Chapter 2

# Introduction to R

Module 1 is a general overview of R and its basics. I personally use R Studio as my development environment of choice (more on development environments later on), so I've also included a very brief overview of R Studio.

The xaringan presentation for this module is here.

## 2.1 What is R and RStudio?

filler

## 2.2 Basic arithmetic operators

filler

## 2.3 Variable assigment

filler

## 2.4 Data types

filler

## 2.5 Data structures (and subsetting)

filler

## 2.6 Functions

# Chapter 3

# Data Analysis in R

In Module 2, we'll look more specifically at how one might do some simple data analysis in R. For a more in-depth view, I would highly recommend Hadley's R4DS

The xaringan presentation for this module can be found here.

## 3.1 Installing packages

filler

## 3.2 Loading data

filler

## 3.3 Cleaning data

filler

## 3.4 Summary statistics

filler

## 3.5 Graphs and plots

# Chapter 4

# Programming in R

In this Module, we'll look at some of the programming concepts and syntax in R.

The xaringan presentation for this module can be found here.

## 4.1 User-defined functions

filler

## 4.2 For loops

filler

## 4.3 If/else statements

filler

# Chapter 5

# Tidyverse

In this module, we'll take a quick look over some of the packages in the tidyverse.

The xaringan presentation for this module can be found here.

## 5.1 tidyr

filler

## 5.2 dplyr

filler

## 5.3 stringr

filler

## 5.4 ggplot2

filler

# Chapter 6

# Exercises

Here are some interactive exercises covering the basic concepts we've looked at in the last 4 modules.

This exercises are hosted on a Shiny server here