

Programming with R

This week is all about functions and about controlling the flow of an R program. We start with control structures (like if-else, and for loops) and then move on to writing functions. Next, we discuss the [lexical scoping](#) features of the language and how they can be used in interesting ways, particularly for statistical applications.

Learning Objectives

By the end of this week you should be able to:

- Write an if-else expression
- Write a for loop, a while loop, and a repeat loop
- Define a function in R and specify its return value [see Functions Part 1 and Part 2]
- Describe how R binds a value to a symbol via the search list
- Define what lexical scoping is with respect to how the value of free variables are resolved in R
- Describe the difference between lexical scoping and dynamic scoping rules
- Convert a character string representing a date/time into an R datetime object. [see Dates and Times]