

COURSE GLOSSARY

Introduction to R

R Console: The interactive environment where R code runs and displays outputs.

Comment (#): Text in code ignored by R; used for explanations.

Variable Assignment (<-): Stores a value in a named object for later use.

Numeric: A numeric data type representing decimal or whole numbers.

Character: Text data enclosed in quotes.

Logical: Boolean values represented as TRUE or FALSE.

Vector: A one-dimensional data structure containing elements of the same type.

Vector Naming: Assigning names to vector elements using `names()`.

cd command: Changes the current working directory

Vector Subsetting: Selecting elements from a vector using indices, names, or logicals.

Comparison Operators: Operators such as `>`, `<`, `==` used to return logical results.

Matrix: A two-dimensional structure with rows and columns of a single data type.

`matrix()` Function: Creates a matrix from a vector with specified dimensions.

Row/Column Names: Labels for matrix dimensions, set with `rownames()` or `colnames()`.

`rowSums()` / `colSums()`: Compute row-wise or column-wise totals in a matrix.

Matrix Subsetting: Extracting specific rows, columns, or elements using `[row, col]`.

`cbind()` Function: Combines matrices/vectors by adding columns.

`rbind()` Function: Combines matrices/vectors by adding rows.

Factor: A categorical data type with a fixed set of levels.

Factor Levels: The categories associated with a factor variable.

Ordered Factor: A factor whose levels have a natural order.

`levels()` Function: Retrieves or reassigns the category labels of a factor.

Data Frame: A table-like structure where columns can contain different data types.

`data.frame()` Function: Creates a data frame from equal-length vectors.

`subset()` Function: Filters a data frame based on logical conditions.

Shell Script: A file containing shell commands that can be executed with `bash`

Loop (for ... do ... done): A structure that repeats commands over a list of items, such as `filenames`