

# **Introduction to R for Data Science**

**Modality: On Demand**

**Duration: 12 Hours**

## **About the course:**

R has gained a lot of popularity as the leading data language especially for statistics and data analysis. R is the number one choice for a data scientist. It doesn't matter what your field is as long as you have to deal with numbers or do data analysis, R is the perfect solution.

This course is based on seven parts where you will learn all about R. You will learn how to analyze data after learning R's syntax. You will also learn how to deal with complex data structures for example vectors, matrices, data frames and lists. Finally you will learn how to make visualizations using graphics by R.

With the use of the DataCamp platform you will be able to further hone your skills and this is what sets this course apart from others. You will have real experience of dealing with data problems and come up with different solutions simultaneously getting feedback on your work.

## **Aims:**

- Learning the basics of R and basic syntax
- How you can analyze data using R
- Familiarizing yourself with different data structures
- Using R to make to visualizations

## **Prerequisite**

There are no prerequisites per se but knowing basic mathematics will come in handy.

## **Course Outline:**

### **1. Basics**

- Lecture: R: The true basics
- Lab: R: The true basics
- Lecture: Basic data types
- Lab: Basic Data Types
- Further Readings

### **2. Vectors**

- Lecture: Create and name vectors
- Lab: Create and name vectors
- Lecture: Vector Arithmetic

- Lab: Vector Arithmetic
- Lecture: Vector Subsetting
- Lab: Vector Subsetting
- Further Readings

### 3. Matrices

- Lecture: Create and name matrices
- Lab: Create and name matrices
- Lecture: Matrix subsetting
- Lab: Matrix subsetting
- Lecture: Matrix Arithmetic
- Lab: Matrix Arithmetic
- Further Readings

### 4. Factors

- Lecture: Factors
- Lab: Factors
- Further Readings

### 5. Lists

- Lecture: Create and name lists
- Lab: Create and name lists
- Lecture: Subset and extend lists
- Lab: Subset and extend lists
- Further Readings

### 6. Data frames

- Lecture: Explore the data frame
- Lab: Explore the data frame
- Lecture: Subset, extend and sort your data frame
- Lab: Subset, extend and sort your data frame
- Further Readings

### 7. Graphics

- Lecture: Basic graphics
- Lab: Basic graphics
- Lecture: Customizing your plots
- Lab: Customizing your plots
- Lecture: Multiple plots
- Lab: Multiple plots
- Further Readings

### Final Lab

- Final Lab

## **Final Exam**

- Final Exam?