

# Data Analysis with R

## Introduction to R Programming

Are you interested in data science but intimidated by R? Maybe you want to start working with quantitative data but have no idea where to begin. If that sounds familiar, this is the course for you!

### Revealing the logic and strengths of R for working with data

Expert Rick Scavetta offers an introduction to programming and data science concepts, aimed at absolute beginners with no prior programming knowledge. You'll discover the power of R as you explore the language's three core strengths: data manipulation, statistics, and data visualization.

Join this online course to learn how to use R to make your data analysis steps efficient, transparent, and reproducible – the hallmarks of all good scientific practice.

# Here's what you'll learn in the course!

## By the end of Data Analysis with R, you'll understand:

- How to use base R and tidyverse syntax to carry out an analysis on your own data.
- The most common data structures in R (classes and types) and how they relate to each other.
- The core features of a data analysis workflow.
- Common errors and how to fix them.

## And you'll be able to use:

- Basic functions in the tidyverse to process raw data for typical data analysis questions.
- Logical expressions and indexing to ask specific questions about the data.
- Functions to conduct common statistical tests."

## This introduction to Data Analysis with R is for you, because:

- You have a dataset to analyze but have only used GUI-based software so far
- You're interested in learning data science but are intimidated by R and have no idea where to start
- You want to enhance your skills to improve your career prospects.
- You're a business professional who seeks insights into the work of your data science team.

## Prerequisites for Data Analysis with R:

- Basic knowledge of the scientific process (e.g., What research question does your address and where does it come from?)
- An RStudio account (You'll be provided RStudio Cloud projects during the course)
- An installation of R and RStudio on your personal computer

## Here's what you can expect during the course!

This online course is designed to span three weeks, allowing you to gradually grasp the material instead of attempting to cover everything in just a few days. Here's a detailed breakdown of the course modules:

### Self-study Periods

You will independently study the course material. It's encouraged that you complete a small part (1 – 2 hours) of the course each day, and you will receive helpful email reminders throughout the course.

### Group Learning Sessions

You will participate in two 2-hour learning sessions with Rick. During these Zoom sessions, you'll discuss key points engage in group exercises. Feel free to ask questions. They are highly encouraged to foster collective learning.

## Case Study Sessions

In this 2-hour Zoom session, you will explore real-world case studies. Together with your group, you'll discuss various solutions and interpretations while examining the reasons for and against them.

## 1:1 Mentoring Session

The course will wrap up with a personalized 1:1 Mentoring Session with Rick. During this online session, you'll have a 30–45 minutes to ask any questions related to your data and receive tailored guidance based on your specific needs.

## Data Analysis with R – Topics Overview

- ✓ Introduction, Tidyverse intro, case study
- ✓ Case study and exercise
- ✓ Functions and exercises
- ✓ Objects and exercises
- ✓ Relational and logical operators
- ✓ Indexing
- ✓ Reviewing the Tidyverse



## Meet your instructor Rick Scavetta



Rick Scavetta has been operating as an independent workshop trainer, freelance data scientist, and co-founder since 2012. Under the name Scavetta Academy, Rick maintains a strong and recurring presence at prominent research institutes throughout Germany. These include several Max Planck Institutes and Excellence Clusters, covering diverse fields such as primatology, earth sciences, marine biology, molecular genetics, and behavioral psychology.

With online courses featured on DataCamp, Rick's teachings have reached more than 200,000 students since 2016. Additionally, he has made contributions to advanced data science courses offered by O'Reilly and Manning.

