



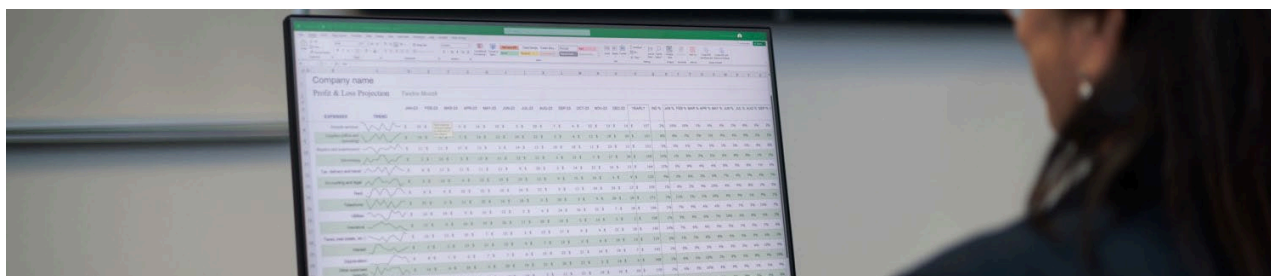
THE UNIVERSITY OF
SYDNEY

R Programming Course: Introduction

*Centre for
Continuing Education*



R Programming Course: Introduction



Welcome to the fascinating and exciting world of R programming. R is an elegant programming language specifically designed for data science, analytics, and statistics. This 'R for Beginners' course takes you through the fundamental skills and techniques required to use R. By the time you leave this focused R tutorial, you will be equipped with the required skills to embark on your own data science adventures. Even the most inexperienced participants will walk away from the course with newfound confidence using R for statistics and data analysis.

Bringing a combination of private, public, and academic professional experience, your instructor will guide you through this R tutorial, showing you step by step how to utilise R.

You'll set up R and the excellent development environment RStudio, import external data, utilise add-in packages, process data for specific use, derive elementary summary statistics, and produce basic statistical visualisations.

Prerequisites

This course is designed with the beginner in mind. While some participants may have experience in other computer programming languages, no prior programming skills are required.



Course duration

1 session, 8 hours total



Time

9am - 5pm



Format

Face-to-face
or
Online in real-time



Dates

Browse available
[course dates](#)

Intended audience

- Business professionals
- Managers
- IT knowledge workers
- Lifelong learners looking to use and understand the basics of R



Upon completion

Every participant receives a University of Sydney certificate of completion.



Aims

This course aims to provide a practical introduction to the R programming language. By the end of the day-long course, the user will be comfortable operating in the R environment, including importing external data, manipulating data for specific needs, and running summary statistics and visualisations.



Outcomes

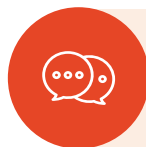
By the end of this course, you should be able to:

- download and install R and RStudio
- navigate and optimise the R integrated development environment (IDE) RStudio
- install and load add-in packages
- import external data into R for data processing and statistical analysis
- learn the main R data structures – vector and data frame
- compute basic summary statistics
- produce data visualisations with the ggplot package
- solve fundamental error problems.



Content

- The R Statistical Programming Language
- The RStudio Integrated Development Environment (IDE)
- Data importation methods
- Basic R Data Types
- Data processing and manipulation techniques
- External add-in packages for R
- Summary statistic functions
- Data visualisations using ggplot
- Error types



“The presenter was excellent, always willing to answer questions and guide you on the right track with the program. The workbook was a useful tool to follow along with, as well as to refer to following the completion of the course. The venue was excellent, clean and easy to navigate around.”

Tanya Mahony



“I really enjoyed the R Programming course! The instructor was clear and engaging, and the material was well-organised. I learnt a lot and feel confident using R for data analysis.”

Mehyar Khair Baik

“An outstanding introduction to a complex topic! Simple delivery for people unfamiliar with R. The course had easy to follow examples, with clearly staged guidance in increasing complexity. I have learnt more than I expected to and am looking forward to attending the intermediate course.”

Eamon Merrick



Delivery style

This course is taught through a series of concepts, examples, problem exercises, and in-class knowledge challenges. The material is presented so that participants of varying backgrounds, skills and abilities can all move together in a brisk, but comfortable learning pace. Utilising principles of productivity, efficiency, and time management, the course material and timeline is structured to optimise learning and value add.

Materials

A link to access and download the following online course materials is provided:

- PowerPoint notes with examples
- all code and script files used throughout the course
- ancillary hand-outs and learning aids.



Organisational training and development

This course can be delivered as a private session for groups, and tailored to meet the needs of your business. Contact us to discuss our range of organisational training solutions.

Learn more



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We recognise and pay respect to the Elders and communities – past, present, and emerging – of the lands that the University of Sydney's campuses stand on. For thousands of years they have shared and exchanged knowledges across innumerable generations for the benefit of all.

Empower ambition,
inspire leadership

For more information

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