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## R Programming Fundamentals

**Duration: 1 Day**    **Course Code: LO035428**    **Delivery Method: Virtual Learning**

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### Overview:

Data analysis is crucial to accurately predict the performance of an application. The course begins by getting you started with R, including basic programming and data import, data visualization, pivoting, merging, aggregating, and joins. Once you are comfortable with the basics, you will read ahead and learn all about data visualization and graphics. You will learn data management techniques such as pivots, aggregations, and dealing with missing values. With this various case studies and examples, this course gives you the knowledge to confidently start your career in the field of data science.

This is a hands-on guide that walks you through concepts with examples using built-in R data. Every topic is enriched with a supporting example that highlights the concept, followed by activities that will gradually build into a full data science project to showcase skills learned. You will perform an end-to-end analysis, starting a data science portfolio.

### Virtual Learning

This interactive training can be taken from any location, your office or home and is delivered by a trainer. This training does not have any delegates in the class with the instructor, since all delegates are virtually connected. Virtual delegates do not travel to this course, Global Knowledge will send you all the information needed before the start of the course and you can test the logins.

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### Target Audience:

This course is for analysts who are looking to grow their data science skills beyond the tools they have used before, such as MS Excel and other statistical tools.

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### Objectives:

- The course begins by getting you started with R, including basic programming and data import, data visualization, pivoting, merging, aggregating, and joins. You will learn how to:
  - Use the basic programming concepts of R such as loading packages, arithmetic functions, data structures, and flow control
  - Import data to R from various formats, such as CSV, Excel, and SQL
  - Clean data by handling missing values and standardizing fields
  - Perform univariate and bivariate analysis using ggplot2
  - Create statistical summary and advanced plots, such as histograms, scatter plots, box plots, and interaction plots
  - Apply data management techniques, such as factors, pivots, aggregation, merging, and dealing with missing values, on the example data sets
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### Content:

#### Lesson 1: INTRODUCTION TO R

- Using R, RStudio, and Installing Useful Packages
- Variable Types and Data Structures
- Basic Flow Control
- Data Import and Export
- Getting Help with R

#### Lesson 2: DATA VISUALIZATION AND GRAPHICS

- Creating Base Plots
- ggplot2
- Interactive Plots

#### Lesson 3: DATA MANAGEMENT

- Factor Variables
  - Summarizing data
  - Splitting, Combining, Merging, and Joining Datasets
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## Further Information:

For More information, or to book your course, please call us on Head Office 01189 123456 / Northern Office 0113 242 5931

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