DATA, ANALYTICS AND AI

R Programming for Data Analysis - Intermediate

LENGTH

1 day

PRICE (Excl. GST)

NZD 775

WHY STUDY THIS COURSE

R is a programming language specifically developed for the statistical analysis of data and for producing graphical output. We introduced the core elements of R programming in our beginner course. This intermediate course is the second in our R series and focuses on:

- data manipulation
- basic exploratory data analysis
- creating customised data visualisations
- basic modelling

Our experienced Data Analyst will guide you through exercises to practice writing R code, use a variety of different functions, produce graphical output, and view the results.

R PROGRAMMING AT LUMIFY WORK

Learn R programming to analyse, manipulate, and visualise data more effectively.

Nexacu Public Schedule

With Lumify Group's acquisition of Nexacu, we're pleased to now offer you the largest public schedule of end user applications training in Australia and New Zealand. As we move to consolidate our End User offering with Nexacu, as an interim measure you can now access the schedule of the most closely aligned courses and book, by clicking on the link below.

Book now!

nexacu
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WHAT YOU'LL LEARN

After completing this course, students will be able to:

- Perform basic exploratory data analysis
- Conduct basic modelling and prediction
- Find functions to perform specific tasks
- Create and manipulate objects
- Work with relational data

My instructor was great being able to put scenarios into real world instances that related to my specific situation.

I was made to feel welcome from the moment I arrived and the ability to sit as a group outside the classroom to discuss our situations and our goals was extremely valuable.

I learnt a lot and felt it was important that my goals by attending this course were met.

Great job Lumify Work team.

AMANDA NICOL
IT SUPPORT SERVICES MANAGER - HEALTH WORLD LIMITED

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COURSE SUBJECTS

Introduction

- Review of R data types and structures
- Review of common syntax for accessing data in data frames

Importing Data

- Importing data in RStudio
- Packages and functions to import data into R
- Using code to import data
- Importing data from text files (csv)
- Importing data from Excel

Workflow in R

- Creating reusable scripts

Manipulating Data

- The tidyverse
- Summarising data
- Ordering data
- Working with dates
- Convert character to date
- Extract years from dates
- Extract months from dates
- Extract days from dates
- Extract days of the week from dates
- Add columns to a data frame

Lumify Work Customised Training

We can also deliver and customise this training course for larger groups saving your organisation time, money and resources.

For more information, please contact us on 0800 835 835.

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- Working with strings
- Selecting and reordering columns in a data frame
- Selecting rows based on values
- Grouping data
- Summarising data
- Identifying blank values and non-number numbers
- Working with data that contains missing values and non-number numbers
- Removing missing values from a data set
- Replacing values
- Concatenate strings
- Bin continuous variables into categories

Working with Relational Data

- Add new variables to a data frame from another
- Mutating joins and merge()
- Filtering joins
- Exporting data to a file

Basic Exploratory Data Analysis

- Choosing the right chart for your goal
- Choosing the right chart for your data
- Univariate analysis of numeric variables
- Univariate analysis of categorical variables
- Multivariate analysis of numeric variables

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- Multivariate analysis of numeric and categorical variables
- Multivariate analysis of categorical variables

Univariate Analysis

- Exploring the data distribution
- Central tendency
- Spread
- Outliers
- Shape of the distribution

Visual Representation of Distributions

- Histograms
- Boxplots
- Dot charts / dot plots
- Stem and leaf plots
- Bar and column charts

Multivariate Analysis

- Scatterplots and scatterplot matrix
- Correlations
- Bar and column charts
- Line charts
- Customising charts in R
- Other graphics options

Basic Modelling

- Modelling for prediction

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- Create a linear model
- How good is the model?
- Assumptions
- Making predictions from the mode

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PREREQUISITES

You should have attended our R Programming for Data Analysis - Beginner course and have a basic understanding of R syntax.

It is assumed that you are familiar with:

- basic R syntax
- data types and structures
- know how to subset data
- know how to install and use contributed packages and their functions
- basic familiarity with working in RStudio is helpful

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