



Course objectives

Participants will learn to analyse and visualise data in R and create reproducible data analysis reports, demonstrate a conceptual understanding of the unified nature of statistical inference, perform frequentist statistical inference and modelling to understand natural phenomena and make data-based decisions, communicate statistical results correctly, effectively, and in context without relying on statistical jargon, critique data-based claims and evaluated data-based decisions, and wrangle and visualise data with R packages for data analysis.

Participants will also develop relevant skill sets to build data-driven Machine Learning/AI applications, and cognitive products using Python.

Course outline

Part 1: Professional Certificate in Machine Learning (Python)

- Introduction to Python Programming
- Statistical Thinking and Exploratory Analysis
- Basic Concepts of Data Modelling
- Advanced Concepts of Data Modelling
- Practical Concepts in Supervised Machine Learning
- Practical Concepts in Unsupervised Machine Learning

Part 2: Certified Data Analytics (R) Specialist

- Introduction To Data Analytics (using R programming)
- Introduction To Data Visualisation (using R programming)
- Web Scraping and Data Insights (using R programming)
- Statistical Inference for Managerial Insights (using R programming)
- A First Look at Visual Analytics (using ggplot2 packages in R)
- Advancing of Visual Analytics (using ggplot2 packages in R)

Course details

1 month

Certificated by Singapore Management University (SMU)

Who should attend

- Anyone with an interest in learning about the fundamentals of data science programming
- Anyone whose work interfaces with data analysis who wants to learn key concepts, formulations, algorithms, and practical examples of what is possible in machine learning and artificial intelligence

Pre-requisites

None

Tools

R programming, Python

Model of training

Classroom, Field trip

