



## Course outline

Participants in this programme will learn to perform Linear and Logistic Regression to model continuous and discrete outcomes. They will also learn various quantitative methods to achieve the best results.

- Understand the use of inference as an imperfect tool to provide evidence of cause and effect in Linear Regression
- Utilise linear models to generate predictions
- Learn various quantitative techniques to decide which input features to include in a linear model

## Course objectives

Despite the explosion of data modelling techniques, machine learning and big data, linear models continue to be the workhorse of many data-driven workflows and analyses. With linear models set as convenient benchmarks for the performance of modelling and learning techniques, such skill set is relevant for any analyst to extensively create or interpret data.

At the end of the course, participants will be able to:

- Identify the situations and modelling contexts using regression or classification
- Conduct regression and classification analyses with linear models via the scikit-learn package
- Focus on the interpretation of models broadly defined in two main categories - inference and forecasting
- Learn to best evaluate the suitability and performance of linear models

### Course details

1 week

Certificated by Singapore Management University (SMU)

### Who should attend

- Aspiring data science professionals seeking to apply Python to real world data problems
- Anyone with an interest in learning about the advanced data analysis techniques and putting it in practice
- Managers looking into costs and performance hurdles through predictive modelling

### Pre-requisites

Experience in Python programming (equivalent to that attained in Professional Certificate in Python Programming programme) is essential.

### Tool

Linear and Logistic Regression Models

### Model of training

Classroom, Field trip

