



# Effective Business Decisions Using Data Analysis Course

## Venue Information

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**Venue:** London UK

**Place:**

**Start Date:** 2026-04-21

**End Date:** 2026-04-25

## Course Details

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**Net Fee:** £4750.00

**Duration:** 1 Week

**Category ID:** MAL

**Course Code:** MAL-9

## Syllabus

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### Course Syllabus

#### Introduction

This interactive, applications-driven 5-day course will highlight the added value that data analytics can offer a professional as a decision support tool in management decision making. It will show the use of data analytics to support strategic initiatives; to inform on policy information; and to direct operational decision making. The course will emphasize applications of data analytics in management practice; focus on the valid interpretation of data analytics findings; and create a clearer understanding of how to integrate quantitative reasoning into management decision making. Exposure to the discipline of data analytics will ultimately promote greater confidence in the use of evidence-based information to support management decision making.

#### This course will feature:

- Discussions on applications of data analytics in management

- How to integrate statistical thinking into the work domain

## **objectives**

### **By the end of this course, participants will be able to:**

- Appreciate data analytics in a decision support role.
- Explain the scope and structure of data analytics.
- Apply a cross-section of useful data analytics.
- Interpret meaningfully and critically assess statistical evidence.
- Identify relevant applications of data analytics in practice.

## **Contents**

### **Day One**

#### **Setting the Statistical Scene in Management**

- Introduction; The quantitative landscape in management
- Thinking statistically about applications in management (identifying KPIs)
- The integrative elements of data analytics
- Data: The raw material of data analytics (types, quality and data preparation)
- Exploratory data analysis using excel (pivot tables)
- Using summary tables and visual displays to profile sample data

### **Day Two**

#### **Evidence-based Observational Decision Making**

- Numeric descriptors to profile numeric sample data
- Central and non-central location measures
- Quantifying dispersion in sample data
- Examine the distribution of numeric measures (skewness and bimodal)
- Exploring relationships between numeric descriptors
- Breakdown analysis of numeric measures

### **Day Three**

#### **Statistical Decision Making – Drawing Inferences from Sample Data**

- The foundations of statistical inference
- Quantifying uncertainty in data – the normal probability distribution
- The importance of sampling in inferential analysis

## **Day Four**

### **Statistical Decision Making – Drawing Inferences from Hypotheses Testing**

- The rationale of hypotheses testing
- The hypothesis testing process and types of errors
- Single population tests (tests for a single mean)
- Two independent population tests of means
- Matched pairs test scenarios
- Comparing means across multiple populations

## **Day Five**

### **Predictive Decision Making – Statistical Modeling and Data Mining**

- Exploiting statistical relationships to build prediction-based models
- Model building using regression analysis
- Model building process – the rationale and evaluation of regression models
- Data mining overview – its evolution
- Descriptive data mining – applications in management
- Predictive (goal-directed) data mining – management applications