



# Data Literacy (DL-100) Agenda

Prepared for Data & Analytics Training

Prepared by Altis Consulting

# 1 Introduction

This one-day, hands-on training is designed to equip participants with the practical skills to interpret data, avoid common pitfalls, and make data-driven decisions with confidence. Through real-world examples and interactive exercises, they will learn how to extract insights from data using Excel-based analysis techniques.

## 1.1 Learning Outcomes

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

- Understand the significance of the DIKW Pyramid and its role in data analysis.
- Differentiate between intuitive and analytical thinking systems and apply them to decision-making.
- Recognise biases in data, cognitive biases, and misleading visualisations.
- Identify and apply appropriate types of data analysis techniques.
- Visualise data distributions effectively and interpret summary statistics.
- Apply descriptive data analysis techniques through practical exercises.
- Utilise Pivot Tables and Scatter Plots to explore data relationships.
- Conduct exploratory data analysis to uncover patterns and trends.
- Apply predictive data analysis techniques, including time-series analysis and linear regression.

By the end of the course, participants will possess the essential skills and knowledge to proficiently interpret, analyse, and engage with data. Equipped with these abilities, they will be able to make informed decisions, critically evaluate data visualisations, and actively contribute to their organisation's data-driven success.

## 2 Example course agenda

#	Topic
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### 1. Introduction

- Welcome & Housekeeping – Course structure, timing, and logistics
- What is Data Literacy? – Definition and importance
- Understanding the DIKW Pyramid – How raw data becomes meaningful

### 2. Common Pitfalls in Data Interpretation

- Cognitive Biases & Their Impact on Decision-Making
- Misleading Data & Selection Bias
- Misleading Graphs & How to Identify Them

### 3. Types of Data Analysis (Conceptual Overview Only)

- Introduction to analysis types: Descriptive, Diagnostic, Predictive, Prescriptive
- Activity: Identifying appropriate types of data analysis

### 4. Descriptive Data Analysis (Hands-On Section)

- Understanding Data Distributions – Shapes and skewness and why it matters
- Misleading Averages – When mean, median, and mode tell different stories
- Visualising Distributions – Histograms and box plots
- Activity: Hands-on data analysis in Excel

### 5. Exploratory Data Analysis

- Exploring Data Relationships with Pivot Tables
- Visualising Data Relationships with Scatter Plots
- Interactive Exercise: Conducting Exploratory Data Analysis on Sample Datasets

**# Topic****6. Predictive Data Analysis**

- Understanding Linear Regression for Predictive Modelling
- Introduction to Time-Series Analysis
- Interactive Exercise: Conducting Predictive Data Analysis on Sample Datasets

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**7. Summary and close**

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