

Format: TBD

Duration: TBD

Aim: To provide foundational knowledge and skills in data analytics that can be used to get, prepare and analyse data to generate business intelligence that can be used to achieve business goals.

Learning outcomes:

On completion of the programme, participants should be able to:

- Understand the key concepts relating to the application of data analytics in business.
- Understand and apply key statistical analysis concepts.
- Import data into a spreadsheet and prepare it for analysis using data cleansing and filtering techniques.
- Summarise data sets using pivot tables and pivot charts.
- Understand and apply data visualization techniques and tools.
- Create and share reports and dashboards in a data visualization tool.

1 – Key Concepts

- Types of Data Analytics
- Business Benefits
- Data Analysis Process
- Data Protection Considerations

2 – Statistical Analysis

- Introduction to Summary Statistics
- Using Measures of Central Tendency
- Using Measures of Variation

3 – Importing Data Sets

- From Text Files
- From Spreadsheets
- From Website Tables
- From Database Tables

4 – Shaping Data Sets

- Removing Duplicate Data
- Validating Data Using VLOOKUP
- Validating Data Using IF Functions
- Extracting Values Using Text Functions

5 – Filtering Data Sets

- Formatting Data Sets as Tables
- Using Table Slicers

6 – Pivot Table Data Aggregation

- Changing Aggregation Methods
- Using Multiple Aggregation Values
- Using Built-In Calculations

7 – Pivot Table Frequency Analysis

- Grouping Data
- Creating Custom Groups
- Ungrouping Data

8 – Filtering Pivot Tables

- Using Report Filters
- Using Pivot Table Slicers
- Using Timelines

9 – Using Pivot Charts

- From Pivot Tables
- From Tables

10 – Data Visualization Tools

- Key Features
- Setting up
- Environment
- Getting Data from Spreadsheets

11 – Creating Basic Data Visualizations

- Creating Tables
- Creating Charts
- Using Conditional Formatting
- Using Visual Level Filters
- Creating Maps

12 – Creating Additional Visualizations

- Creating KPIs
- Creating Cards
- Creating Matrixes
- Creating Slicers

13 – Publishing and Sharing

- Sharing Reports
- Creating and Sharing Dashboards
- Good Design Practice
- Evaluating Results