**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.

Data Analytics - Foundation Course Outline

This course outline is for Microsoft Excel 2016 and Microsoft Power BI on Windows 10.

**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

**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

**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