



## Be a Microsoft Excel Expert: Business Data Analysis with Excel and Power BI

### INTRODUCTION

Excel is a powerful, flexible tool for every analytics activity. Combine it with Power BI to get broad data analytics and visualization capabilities. Easily gather, shape, analyze, and explore key business data in new ways—all in less time—using both apps together.

Do you want to make business decisions backed by data? Learn how to do that in Power BI. Learn to work in Power BI to review and interact with this content to make business decisions from your PC or mobile device.

### LEARNING OUTCOME:

In this course, you will learn how to:

- Mastering used of excel statistical analysis
- Understanding **Bayesian** Analysis, Central Limit and Visualization
- Understand Power BI service basic concepts and terminology.
- Find your content in dashboards, reports, and apps.
- View and export data from dashboards and reports.
- View filters that are used in a report.
- Explain the relationship between dashboards and reports, visualizations, and tiles.
- Display action menus for tiles and details for report visualizations.
- Collapse and expand the nav pane and the Filters and Bookmarks panes.
- Subscribe to a dashboard and report.
- Set a data alert.
- Collaborate by using dashboard commenting.

### Part 1: Excel Statistical Analysis

#### **Module 1: Reporting in Excel**

This module explains how to create a report in Excel

Filtering and Formatting Data

- Charts
- Filtering Excel Data
- Formatting Excel Data
- Create excel Charts

#### **Module 2: Excel Tables**

This module explains how to create data tables in Excel

- Excel Data Tables
- Summarizing Data
- Create an Excel Table
- Summarize Excel Data

### **Module 3: Pivot Tables and Pivot Charts**

This module describes pivot tables and pivot charts and how to work with them.

- Pivot Tables
- Pivot Charts
- Editing Pivot Tables and Pivot Charts
- Creating a Pivot Table
- Creating a Pivot Chart
- Editing Pivot Tables and Pivot Charts

## **Part 2: Bayesian Analysis, Central Limit and Visualization**

### **Module 1: Introduction to Excel Analysis ToolPak**

This module explains how to install Excel Analysis ToolPak, identify the Data Analysis tool and move around Excel interface.

- Install and Introduce Excel Analysis ToolPak:
- Data Analysis

### **Module 2: Entering & Modifying Data**

This module explains to Enter data in Excel and Edit variables in Excel.

- Enter data in Excel, define variables & save.

### **Module 3: Basic Statistics**

This module explains how to use Excel to run and interpret simple descriptive statistics.

Descriptive Statistics

- Frequencies
- Central Location
- Measures of Dispersion
- Shape of Distribution

### **Module 4: Data Visualization**

This module explains how to;

- Explore data
- Know the type of data that fits into a particular chart &
- Create Bar charts, Histograms, Pie charts & Scatterplots using Excel

### **Module 5: Difference between two groups**

This module explains how to use Excel to run difference of two means and interpret the results.

- Use Excell to run independent samples test
- Interpret the result

### **Modula 6: Difference between more than two groups (ANOVA)**

This module explains how to use Excel to run One-Way ANOVA and interpret the results

- One-Way ANOVA
- Interpret the result

### **Module 7: Paired Tests**

This module explains how to use Excel to run Paired t-test and interpret the results.

- Use Excel to run Paired t-test
- Interpret the result



## **Module 8: Regression Analysis**

This module explains how to state the conditions for regression analysis, Compute simple and multiple regression analyses and interpret the results.

- Use Excel to run Simple and Multiple Regression Analysis
- Interpret the results

## **Module 9: Correlation Analysis**

This module explains how to use Excel to run Correlation Analysis and interpret the results.

- Use Excel to run Correlation Analysis
- Interpret the result

## **Part 3: Power BI**

### **Module 1: Explore what Power BI can do for you**

- What can I do with Power BI service as a consumer?
- View content in Power BI service
- Explore with dashboards, reports, and apps in Power BI
- Collaborate and share in Power BI
- Find and view dashboards and reports

### **Module 2: Analyze data with Power BI**

- Filter data with Power BI
- View your data - 5 min
- Ask questions of your data
- Apply filters to reports

### **Module 3: Get started building with Power BI**

- Introduction
- Use Power BI
- Building blocks of Power BI
- Tour and use the Power BI service

### **Module 4: Get data with Power BI Desktop**

- Overview of Power BI Desktop
- Explore Power BI Desktop
- Connect to data source
- Get data from Excel
- Transform data to include in a report
- Combine data from multiple sources
- Clean data to include in a report
- Model data in Power BI

### **Module 5: Introduction to modelling your data**

- How to manage your data relationships
- Create calculated columns
- Optimize data models
- Create measures
- Create calculated tables
- Explore time-based data



### **Module 6: Use visuals in Power BI**

- Introduction to visuals in Power BI
- Create and customize simple visualizations
- Create slicers
- Map visualizations
- Matrices and tables
- Create scatter, waterfall, and funnel charts
- Modify colors in charts and visuals
- Page layout and formatting

### **Module 7: Explore data in Power BI**

- Introduction to the Power BI service
- Quick insights in Power BI
- Create and configure a dashboard
- Ask questions of your data with natural language
- Create custom Q&A suggestions
- Share dashboards with your organization
- Display visuals and tiles in full screen
- Edit tile details and add widgets
- Get more space on your dashboard

### **Module 8: Publish and share in Power BI**

- Introduction to content packs, security, and groups
- Publish Power BI Desktop reports
- Print and export dashboards and reports
- Introducing Power BI Mobile
- Create workspaces in Power BI
- Build apps
- Use apps
- Integrate OneDrive for Business with Power BI
- Publish to web

### **Module 9: Introduction to DAX**

- Introduction to DAX
- DAX calculation types
- DAX functions
- Using variables in DAX expressions
- Table relationships and DAX
- DAX tables and filtering

### **AUDIENCE**

- This course is designed for Officers, Executives, Supervisors, Administrators, Managers of all Levels.

### **METHODOLOGY**

- 28 hours of Self-Paced e-Learning (Online TALENT LMS) - Audio, video, reading material, YouTube video and worksheets.

