



# POWER EXCEL

## For Data Analytics & Power BI

03 Days Training Program

Training Methodology: Workshop  
Delivery Mode: Physical Classroom

Keen to breakthrough to real mastery?

Give your MS Excel skills a power boost!

Learn out new ways to increase the sophistication of your data reporting and business intelligence.

# Program Overview

**This training program aims to impart advance level data analysis skills using spreadsheets (Microsoft Excel) to a broad range of users to help them become proficient at it.**

In Today's Challenging environment, one of the most significant skill for Business Leaders & Finance Professionals is their ability to quickly analyze, summarize & report on the available data. Microsoft Excel is an important tool which makes such an analysis possible for any business decision maker. When efficiently applied it becomes a powerful tool, allowing you to manipulate vast amounts of data, automate tasks, and present complex information however you see fit.

Keeping in view the significance of MS Excel for Data Analytics, ACS Training Company, has developed a high powered three days training program to assist a wide range of professionals with mastering the Excel data analysis skills at a Pro Level. The fundamental focus of this program is to provide a detailed understanding of how Excel can be utilized as a very powerful tool for Data Analytics & to develop a solid understanding of the concept of 'Self-service Business Intelligence' with Microsoft Excel.

The participants will acquire in-depth knowledge of the power tools available in Excel (Power Query, Power Pivot, Data Modeling, DAX, Power View & Power Map), igniting their interest for continuing skill development in this vital area. This workshop will enable Excel users to design & automate the process, with increased productivity and reduction in manual work.



Program Duration

**18 Hours**



Delivery Method

**Workshop**



Delivery Days

**03 Wednesdays**



Assessment

**Workshop**



Certificate Given

**Yes**



Workshop Duration

**6 Hours/Day**

## Your Learning **Certified**



## Who Should Attend

- ✓ Business & Data Analysts
- ✓ Business & Accounting Students
- ✓ ICPA, ACCA, ACMA, CIMA Members & Students.
- ✓ MIS Reporting Executives.
- ✓ Finance Professionals & Auditors.
- ✓ Human Resource & Admin Professionals.
- ✓ Sales & Marketing Professionals.
- ✓ Senior Management & Department Heads.

## 1 Day One

### Module 1: Working with “Excel Table” format

- ✓ From ‘regular range’ to ‘Excel table’
- ✓ Working with ‘Design’ contextual tab
- ✓ Dynamic ‘Slicers’ and ‘Total Row’
- ✓ Table styles, options and configuring custom styles
- ✓ Getting acquainted with the advanced applications of the feature

### Module 2: Spotighting Dynamic data with Conditional Formatting

- ✓ Creating value-based formatting using logical operators
- ✓ Applying Top/bottom rules, using ‘Data bars’ and analyzing variance with ‘color scales.’
- ✓ Creating custom conditional formatting rules
- ✓ Creating rules using formulas, managing, and clearing rules
- ✓ Being pro in applying effective conditional formatting in real business scenarios

### Module 3: Creating Powerful Dynamic Charts and Graphs

- ✓ Getting to know about data visualization and the science of colors
- ✓ Understanding Excel Chart Concepts, elements, types, and ‘Chart Tools’ tabs
- ✓ Creating custom chart templates
- ✓ Working with Specific Chart Types such as Column and bar chart, Line chart, Area chart, Pie & Doughnut charts and creating ‘dual-axis’ charts
- ✓ Fine-Tuning Charts with ‘Design Tab’ Choices, apply chart ‘layouts’ and ‘styles’
- ✓ Changing chart options, modifying axes, adding and modifying chart titles, linking chart titles, adding data labels and data tables, adding gridlines, legends and trend lines
- ✓ Inserting pictures, shapes, and Text Boxes on charts
- ✓ Changing a Chart’s Data Source and adding additional data series
- ✓ Creating Specialized Excel Charts e.g. Combo Chart, Gantt Chart, Treemap, Histogram and Pareto chart and Waterfall charts
- ✓ Working with ‘Sparklines’

### Module 4: Summarizing Business Information with Pivot Tables

#### *Condensing and refining data with Pivot Tables*

- ✓ Developing interactive PivotTable reports for real-time data analysis
- ✓ Data refining rules, creating a Pivot table from an external data source, using ‘Recommended PivotTables’, pivoting and configuring PivotTables
- ✓ Summarizing Data in PivotTable, applying totals, summarizing values, calculated fields and items, grouping data, applying calculations, and drill down Pivot Table results
- ✓ Filtering and Sorting PivotTable, adding dynamic ‘Slicers’ and ‘Timeline’
- ✓ Formatting PivotTables, creating custom styles and modifying the layout
- ✓ Integrating conditional formatting with Pivot Reports
- ✓ Macro integration with Pivot reports

#### *Smart Pivot Charts for data visualization*

- ✓ Creating pivot charts for data visualization and moving towards dashboard designing

## 2 Day Two

### Module 5: Advanced Formulas and Functions

- ✓ Formula and Function tools, tips, shortcuts & working with 3D formulas
- ✓ Understanding and defining 'named ranges'
  - ✓ *Name cells, name data ranges, name tables, manage named ranges*
- ✓ Summarizing data
  - ✓ *Performing calculations by using the SUM, MIN & MAX functions, performing calculations by using the COUNT, COUNTA, COUNTBLANK & AVERAGE functions*
- ✓ Conditional operations
  - ✓ *Performing logical operations by using IF, AND, OR, NOT, ISNUMBER & IFERROR functions, performing logical operations by using the SUMIF, AVERAGEIF, COUNTIF, SUMIFS, AVERAGEIFS & COUNTIFS functions*
- ✓ Look up data by using VLOOKUP, HLOOKUP, MATCH & INDEX functions
- ✓ Applying Mathematical Functions
  - ✓ *Applying ROUND, MROUND, ROUNDUP, ROUNDDOWN, CEILING & FLOOR & ABS functions*
- ✓ Applying advanced date and time functions
  - ✓ *Referencing Date and Time by using TODAY, NOW, WEEKDAY, WORKDAY, NETWORKDAYS, EDATE, EOMONTH & DATEDIF functions; serialize numbers by using DATE function*
- ✓ Array Formulas and Functions
- ✓ Format and modify text by using functions, TRIM, LEFT, RIGHT and MID functions; format text by using UPPER, LOWER, PROPER, LEN & CONCATENATE functions
- 1. Troubleshoot formulas
  - *Trace precedents and dependents, monitor cells and formulas by using the 'Watch Window', validate formulas by using error checking rules*

### Module 6: Connecting and transforming data with "Power Query"

- ✓ Performing extract, transform, and load (ETL) functions with Power Query
- ✓ Smartly automating repetitive and laborious tasks
- ✓ Getting data from Excel, text, and CSV file
- ✓ Extracting all files from a folder to create one data set
- ✓ Creating connection with external data sources and databases
- ✓ Managing rows and columns and understanding 'Transform' and 'Add Column'
- ✓ Text Specific Tools, formatting, merge, split and extract columns
- ✓ Number Specific tools, adding new column using standard functions, applying rounding
- ✓ Date specific tools, creating a full calendar from a single date field
- ✓ Removing duplicates, adding an index, and conditional column
- ✓ Grouping, filtering, Transposing, and reverse rows features
- ✓ Editing, deleting, renaming, and duplicating queries
- ✓ Un-pivoting columns to create tabular data
- ✓ Merging and Appending queries
- ✓ Managing data types to avoid errors in the data model
- ✓ Introduction to Power Query "M" language & 'Query Editor'

### Module 7: Managing table relationships and Data Models

- ✓ Exploring Excel's Data Model
- ✓ Understanding what Data Model is and why we need it
- ✓ Data vs Diagram view
- ✓ Normalization and Denormalization
- ✓ Facts vs dimensions tables
- ✓ In-depth understanding regarding Primary vs Foreign keys
- ✓ Creating & modifying table relationship
- ✓ Creating a clear understanding regarding relationships vs Merged Tables
- ✓ Learning cardinality of relationships & filter direction
- ✓ Creating 'Star Schemas'
- ✓ Defining hierarchies and hiding fields from client tools

## 3 Day Three

### Module 8: Power Pivot in Excel

- ✓ Launching Power Pivot and touring the interface
- ✓ Creating a Power PivotTable
- ✓ Learning Power Pivots vs Normal Pivots
- ✓ Calculated columns & calculated fields
- ✓ Getting external data directly in Power Pivot
- ✓ Using 'Sort by' the command to sort any column with your own choice
- ✓ Creating dashboards in Excel directly from Power Pivot

### Module 10: Interactive Dashboard Designing for Decision Making

- ✓ Cleaning up data and starting with the end in mind
- ✓ Creating dashboards for data-driven decision-making
- ✓ Making the dashboard easier to review, understand and conclude
- ✓ Creating Dashboards using Pivot tables and Pivot Charts
- ✓ Creating Dashboards using Power Pivot
- ✓ Creating Dashboards using Power View
- ✓ Creating Dashboards using Data validation and logical functions

### Module 9: Solving Data Analysis Problems with DAX

- ✓ Intro to Data Analysis Expressions (DAX) formula language
- ✓ Similarities and differences with Excel formula language
- ✓ Calculated Columns vs DAX Measures
- ✓ Implicit vs Explicit Measures
- ✓ Row Context vs Filter Context
- ✓ Knowing DAX Formula Syntax & Operators
- ✓ Learning Measure calculation Step-by-Step
- ✓ Creating & managing KPIs to measure business performance
- ✓ Getting to know the best practices in writing DAX queries
- ✓ Common DAX functions with their category
  
- ✓ Basic math and stat functions
  - ✓ *SUM, AVERAGE, MAX, MIN, DIVIDE, COUNT, DISTINCTCOUNT functions*
  
- ✓ Logical functions
  - ✓ *IF, AND, OR, SWITCH & SWITCH(TRUE) functions*
  
- ✓ Iterator (X) Functions
  - ✓ *SUMX & RANKX functions*
  
- ✓ Table Functions and CALCULATE
  - ✓ *CALCULATE function*
  - ✓ *FILTER & ALL function, Adding Filter Context with FILTER function, RELATED function*
  
- ✓ Time Intelligence with DAX functions
  - ✓ *Understanding time intelligence & Calendar Table*
  - ✓ *SAMEPERIODLASTYEAR, DATEADD, DATEDIFF, DATESYTD, DATESQTD, DATESMTD, PARALLELPERIOD, TOTALYTD, TOTALQTD, TOTALMTD functions*

### Module 11: Bring your data to life with Power View Dashboards

- ✓ Enabling Power View and installing "Silver Light"
- ✓ Creating Matrix, table, and card visuals to present data
- ✓ Adding 'callouts' cards to put the focus on an important info
- ✓ Drill down data using hierarchy
- ✓ Managing data with perspectives
- ✓ Adding power view charts to bring data to life
- ✓ Adding report filters to slice and dice the data visually

# Key **Highlights** of Program Takeaways

- ➡ Detailed understanding of how Excel can be utilized as a very powerful tool for Data Analytics.
- ➡ Capability to design smart dashboards in Excel with multiple methods.
- ➡ Extract, Transform and Load (ETL) data with Power Query and create refreshable ETL processes.
- ➡ Creating data models & understanding table relationships.
- ➡ Solving Data Analysis problems with Excel as well as with more advanced formula language i.e. DAX.
- ➡ Self-service Business Intelligence with Excel.
- ➡ Creation of smart reports and dashboards from multiple data sources and with multiple tables.
- ➡ Answers (with comprehensive solutions) to the practical problems of the participants.

## Program Benefits

- It will equip you with the power features of Excel such as Power Query, Power Pivot, DAX, Data Modeling, Power View and Power Map.
- Develop a unique combination of working with two formula languages, i.e. Excel and DAX.
- Automating routine and laborious tasks without learning complex VBA coding & Macros.
- Creating dashboards with multiple methods such as Pivot Charts, Advanced Formulas, Power Pivot, and Power View.
- Taking the excel skills from traditional Excel specific features to the Advanced level power features.
- It's a step in moving towards next level of performing data analysis using Microsoft Power BI.
- To develop a unique skill set in both Traditional Excel and Power Excel.
- Connecting Excel directly with databases with refreshable data connections.
- Time efficiency, Process Automation, increased productivity and reduction in manual work.
- Stand out from the crowd and advance in your career.