

*LEARN ANYTIME, ANYWHERE – AT YOUR OWN PACE!*

# DATA ANALYTICS TRAINING PROGRAM SELF-PACED

An Initiative of The Digital Assurance & Accounting Board of ICAP



111-000-422



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## ABOUT THE PROGRAM

The Institute of Chartered Accountants of Pakistan (ICAP), through its Digital Assurance & Accounting Board (DAAB), has been pioneering initiatives to prepare professionals for the digital era.

In response to the increasing need for flexible learning and global accessibility, we are introducing a Self-Paced Program, a new initiative designed to empower learners to study on their own schedule while gaining expertise in the most in-demand data analytics tools and techniques.

The course is intended to upskill professionals using data for finance, audit, and other business decisions. It aims to provide participants with the skillset to understand and create financial models using software & tools, enabling better insights for improved decision-making in a timely and efficient manner. It emphasizes financial modeling, forecasting, technical software, and system language that facilitate the prediction of potential results based on patterns.

## KEY BENEFITS

1. Ideal for professionals, students, and entrepreneurs across all time zones.
2. Live one to one session with the Trainer. Limited access
3. Learn anytime, anywhere, at your own pace, balancing professional and personal commitments.
4. Master **data analytics, forecasting, and visualization** skills employers demand.
5. Gain **hands-on experience** with **MS Excel** and **Power BI**.
6. Strengthen **critical thinking, problem-solving, and adaptability**.
7. Learn from **leading trainers & industry professionals**.
8. **Interactive LMS** with recorded sessions, exercises & reading materials.
9. Connect with a **diverse peer group** and explore **global industry standards**.





## PROGRAM OVERVIEW

A structured, step-by-step journey across two-focused modules:

### MODULE A:

Financial Modeling, Forecasting & Dashboards (MS Excel)

### MODULE B:

Data Visualization with Power BI (Power Query, DAX, Storytelling)

## SKILLS YOU WILL MASTER



DATA ANALYSIS & FORECASTING



FINANCIAL MODEL BUILDING



DYNAMIC DASHBOARD CREATION



DATA CLEANING & TRANSFORMATION



BUSINESS INTELLIGENCE (POWER BI)



## WHAT MAKES THIS PROGRAM UNIQUE?

- 88 CPD Hours of high-quality, practical learning
- Expertly designed curriculum by ICAP professionals
- Access to recorded lectures, reading material, and exercises
- Hands-on case studies from Finance, HR, and Marketing
- Certificate awarded upon successful completion

### Program Fee (Exclusive of Tax)

For Members: **65,000 + Tax**

For Non-Members: **85,000 + Tax**

### Contact Us:

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### Register Now:

[<https://member.icap.org.pk/online-registration-for-seminar-workshop/>]

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## ASSESSMENT PROTOCOLS & REQUIREMENTS

- The mentioned charges are exclusive of taxes.
- Additional fee will be charged for re-attempt of assessment.
- The above cost includes readable access to manual and first time Assessment Charges.
- The training material (recordings, manual, class files) shall only be accessible for the duration of One Year, from the date of registration. (September 2025 – August 2026)

- Late/Re-assessment will be conducted on the next available date.
- Certificate will be issued after passing the assessment criteria of each module.
- Participants can book one to one session of 15 minutes with the trainer twice in each module as per the schedule available on LMS to have specific queries.

## ASSESSMENT PROTOCOLS:

**Final assessment of each module shall be taken twice a year as per the given below calendar:**

**Module A ——— Oct 31, 2025 – Nov 10, 2025**

**Module B ——— Feb 27, 2026 – March 9, 2026**

**Module A ——— Dec 10, 2025 – Dec 20, 2025**

**Module B ——— Apr 10, 2026 – Apr 20, 2026**

- Participant can choose to attempt assessment in the mentioned window. However, once the assessment is accessed, will have to be submitted within the period of 5 days.
- Certificate will only be issued to the participants achieving 50% marks in the final assessment along with 75% activity tracked via LMS.
- It will be conducted online via LMS, participants may take it online from anywhere.



## MODULE A

# FINANCIAL MODELING, FORECASTING AND DASHBOARDING WITH MS EXCEL

### Advanced Data Modeling

15 Hours

- Advanced Excel Functions
- Dynamic Array formulae
- Conditional formatting
- Working with Name Manager
- Data within lists and tables
- What if analysis using data table
- Scenarios Management
- Data Validations
- Advanced filter
- Data Analysis with Pivot Tables and Pivot Charts
- Using slicers
- Using sparklines
- Creating dynamic charts
- Using smart chart legends

### Financial Modeling and Forecasting

15 Hours



#### Basics of Financial Modeling

- Purpose of financial models
- Risks associated with financial modeling
- Approaches to model building, their benefits and importance of formatting



#### Designing a Financial Model

- Overall process of model development and model design
- Setting up a typical layout, structure and flow of the model
- Following template-based approach to achieve consistency
  - Best practices in model designing



#### Layouts and assumptions

- Alternative layouts for model inputs and scenarios
- Assign range names and data validation to increase model robustness



#### Fixed assets and depreciation

- Modelling capital expenditure relating to different asset classes
  - Asset movement schedules
- Straight line vs. declining balance methods



## Operations Modeling

- Forecasting for revenues, operating and maintenance costs & working capital
- Using indexation factors based on different cash flow timing assumptions



## Debt and Equity Financing

- Modelling different drawdown approaches to service funding needs
- Costs related to debt financing such as interest
- Different debt repayment methods (monthly, quarterly, annual repayments)



## Taxation

- Different approaches for modelling corporate taxation



## Implementation and use of model

- The importance of integrated financial statements and how to set them up
- Other key output measures such as lending and profitability ratios and industry KPIs
- Creating contents pages for easier use and navigation
- Creating dashboards for users



## Sensitivity Analysis

- Performing stress testing on a model based on designated sensitivities



## Model review and testing

- Use of checks sheets to automatically detect and identify potential errors
- Common modelling errors including tips on how to spot them



## Valuation Model

- Introduction to company valuation
- Company valuation using DCF model, multiples (sales, EBIT etc.)



## Dashboard Reporting

14 Hours



Sales Dashboard



Procurement Dashboard



Inventory Dashboard



HR Dashboard

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## MODULE B: POWER BI, POWER QUERY AND DAX

### Power Query (ETL)

12 Hours

- What is Power Query? Why is useful for Accountants / Auditors?
- Data Types
- Fixing Dates issues
- For Columns, MOVE, REMOVE, RENAME, DUPLICATES
- Split Columns
- Merge Columns
- Filtering Rows
- Removing Duplicates and Errors
- Sorting
- Appending Data from Different Excel Worksheets
- Appending Data from Different Excel Workbooks
- Appending Data from Different Excel Worksheets - Different Names
- Replace and Fill
- Transforming Text and Numbers
- Adding Custom and Calculated Columns
- Grouping
- Unpivot
- Transpose
- 6 Types of Joins
- Importing and cleansing invoice / purchase order data from folder in excel or pdf format
- Using queries to generate date table





## Data Modeling

7 Hours

- Introduction to data modeling
- Scattered information
- Business entities
- Normalization and denormalization
- Star schemas
- Introducing star schemas
- Placing tables in a diagram
- If you don't have a star schema
- Why data modeling is useful
- What is the role of a data model?
- Data modeling scenarios
- Common scenarios
- Multiple fact tables
- Building a star schema
- Handling multiple dates
- Multiple relationships with date

## Data Analysis Expressions (DAX)

15 Hours



### Introduction to DAX

- Overview of the environment in Excel and Power BI
- Loading data into PowerPivot (multiple methods)



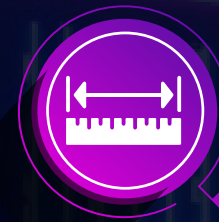
### Calculated Columns

- Creating calculated columns
- Using RELATED function - the Hookup of Power Pivot
  - Dos and don'ts of calculated columns
- Sorting columns and sorting by other columns
  - Understanding row context



### Relationships

- Working with multiple tables
  - Diagram and data views
  - Defining relationships
- Editing and handling multiple relationships



### Measures in PowerPivot

- Implicit and explicit measures
- Understanding filter context
  - Measure referencing
- Editing / deleting measures Learning







## Data Analysis Expressions (DAX) Functional Language

- Date and time functions: CALENDAR, DATE, DATEDIFF, NOW, WEEKDAY, WEEKNUM, YEAR, MONTH, DAY
- Filter functions: ALL, ALLCROSSFILTERED, ALLEXCEPT, ALLSELECTED, CALCULATE, CALCULATETABLE, FILTER, KEEPFILTERS, LOOKUPVALUE, REMOVEFILTERS
- Information functions: CONTAINS, HASONEFILTER, HASONEVALUE, ISBLANK, ISEMPY, ISERROR, USERNAME
- Logical functions: AND, IF, IFERROR, NOT, OR, SWITCH, TRUE, FALSE
- Math and Statistical Functions: DIVIDE, SUM, SUMX, AVERAGE, AVERAGEX, COUNT, COUNTBLANK, COUNTROWS, COUNTX, DISTINCTCOUNT, MAX, MAXX, MEDIAN, MEDIANX, MIN, MINX, RANKX
- Table manipulation functions: TOPN, GROUPBY, SUMMARISE, DATATABLE, VALUES
- Text functions: CONCATENATEX, FIND, LEFT, LEN, MID, REPLACE, SEARCH, TRIM, VALUE
- Time intelligence functions: DATEADD, DATESBETWEEN, DATESMTD, DATESQTD, DATESYTD, PARALLELPERIOD, SAMEPERIODLASTYEAR, TOTALMTD, TOTALQTD, TOTALYTD



### Organising DAX Measures



### Solving Practice Problems using DAX - Case Studies



- Sample Rules
- Sample Chart Reference
- Dashboard design checklist
- The Visuals Reference
- The 15 Rules Reference
- Visualization Best Practices
- Which Chart is the Best?
- Basic Charts
- Interaction of Visuals
- Color Formatting
- Setting Sort Order
- Types of Charts & Play with Axis
- Tooltips
- Slicers & Timeline Slicers
- Cross Filtering and Highlighting
- Visual, Page and Report Level Filters
- Drill Down/Up
- Hierarchies
- Story Telling
- Map Visuals
- Line Chart; Powerful
- Table and Matrix with Conditional Formatting
- Multiple levels of filters
- Using custom slicers
- Handling multiple currencies in visuals
- Switch between web/phone layout
- Inserting shapes, images, and text boxes
- Drill down
- Tooltip
- Hyperlink & Bookmark

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