

Introduction to Power BI DAX

Hours: 16

Target Audience

This course is ideal for:

- Power BI beginners and intermediate users.
- Business/Data Analysts who work with reports and KPIs.
- BI developers responsible for building dashboards.
- Excel users transitioning into Power BI.
- Students and professionals starting a career in data analytics.

Course Overview

This course introduces learners to the fundamentals of DAX in Power BI. Participants will learn how DAX works within the data model, write formulas, and create calculated columns, measures, and basic tables. The course covers essential DAX functions, evaluation context, variables, and basic time intelligence. Through guided exercises and practical examples, learners will develop the skills to build meaningful business calculations and enhance Power BI reports with dynamic insights.

Module 1: Introduction to DAX

- 1.1 What is DAX?
- 1.2 Why DAX is Important in Power BI
- 1.3 Understanding Data Models & Relationships
- 1.4 Types of DAX Calculations:
 - Calculated Columns
 - Measures
 - Calculated Tables
- 1.5 Difference Between DAX & Excel Formulas

Module 2: DAX Syntax & Basics

- 2.1 DAX Syntax Rules
- 2.2 Data Types in DAX
- 2.3 Operators (Math, Comparison, Logical)
- 2.4 Writing Your First DAX Expressions

Module 3: Working with Columns, Measures & Tables

- 3.1 Creating Calculated Columns
- 3.2 Creating Measures
- 3.3 Creating Calculated Tables
- 3.4 When to Use Columns vs Measures

Module 4: Understanding Evaluation Context

- 4.1 What is Row Context?
- 4.2 What is Filter Context?
- 4.3 Context Examples
- 4.4 Introduction to CALCULATE() (Beginner-Level Explanation)

Module 5: Using Variables

- 5.1 What Are DAX Variables?
- 5.2 Syntax: VAR and RETURN

Day 2:

Module 6: DAX Functions

- 6.1 Aggregation Functions
 - SUM
 - AVERAGE
 - COUNT
 - DISTINCTCOUNT
- 6.2 Text Functions
 - CONCATENATE
 - LEFT / RIGHT / MID
- 6.3 Logical Functions
 - IF
 - AND / OR
- 6.4 Error Handling
 - IFERROR
 - ISBLANK

Module 7: Table Functions

7.1 FILTER (Beginner Examples)

7.2 VALUES (Use Cases)

7.3 ALL (Removing Filters)

Module 8: Introduction to Time Intelligence

8.1 What Is a Calendar Table?

8.2 Year-to-Date (YTD)

8.3 Month-to-Date (MTD)

8.4 Period Comparisons

Module 9: Practical DAX Applications

9.1 Creating Business Calculations

- Profit
- Margin %
- Growth %

9.2 Creating Dynamic Titles

9.3 Using DAX for Conditional Formatting

Module 10: Putting It All Together

11.1 Applying Filters

11.2 Creating Measures for a Dashboard

11.3 Common Mistakes

11.4 Practice Exercises