

# Microsoft - Power BI DAX Formulas and Functions

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**Course Number: PBI-123**

**Duration: 0.5 days**

## Overview

## Course Description

DAX is the language for writing formulas in Power BI to perform complex calculations and create dynamic visualizations that would not be possible using Power BI alone. Ascendient Learning's DAX for Power BI training course teaches attendees how to write formulas and functions in Power BI using DAX, create measures, and use the formula bar.

## Skills Gained

- Understand DAX fundamentals
- Create calculated columns, calculated tables, and measures using DAX
- Apply essential DAX functions to solve common business problems
- Work with date and time functions in DAX
- Use DAX count functions to summarize data

## Prerequisites

All attendees must understand the basics of using Power BI and creating reports.

## Training Materials

All Power BI training students receive comprehensive courseware.

## Software Requirements

- A recent version of Windows (Windows 10 or later) with at least 8 GB of RAM
- Microsoft Office installed (especially Excel)
- Power BI Desktop installed

## Audience

## Course Details

### Outline

- Introduction to DAX
  - What is DAX?
  - Creating Calculations without DAX
  - Understanding Measures
  - Understanding Quick Measures
  - Using the Formula Bar
- Essential DAX Functions Every User Should Know
  - SUM() & SUMX()
  - AVERAGE() & AVERAGEX()
  - MIN() & MINX()
  - MAX() & MAXX()
  - CALCULATE()
  - FILTER()
  - ALL()
  - RELATED()
  - TOTALYTD(), TOTALQTD(), TOTALMTD()
  - CONCATENATE() & CONCATENATEX()
  - SWITCH()
- DAX Date and Time Functions

- DAY(), MONTH(), QUARTER(), YEAR()
- TODAY(), NOW(), NETWORKDAYS()
- DATEDIFF()
- EDATE()
- EOMONTH()
- Other Date Functions
- DAX Count Functions
  - COUNT()
  - COUNTA()
  - COUNTBLANK()
  - COUNTROWS()
  - DISTINCTCOUNT() & DISTINCTCOUNTNOBLANK()
- Conclusion