



## 1. Course Outline

### Part 1: Introduction to DAX

1. What is DAX?
2. Why use DAX with Power BI
3. Calculated Columns vs Measures
4. Types of Functions
  1. Logical Functions
  2. Table manipulation functions
  3. Date and time functions
  4. Filter functions
  5. Financial functions
  6. Math and Trig functions
  7. Parent and Child functions
  8. Relationship functions
  9. Statistical functions
  10. Text functions
  11. Time intelligence functions

### Part 2: Logical functions

1. TRUE
2. FALSE
3. IF
4. IFERROR
5. AND
6. OR
7. SWITCH
8. COALESCE

### Part 3: Tables

1. Tables Overview
2. Filtering Tables
  1. FILTERS
  2. TOPN
3. Summarizing Tables
  1. SUMMARIZE
  2. SUMMARIZECOLUMNS

3. ROLLUP
4. GROUPBY
4. Generating Tables
5. Distinct Values
  1. DISTINCT column
  2. DISTINCT table
6. Joining Tables
  1. CROSSJOIN
  2. NATURALINNERJOIN
  3. NATURALLEFTOUTERJOIN
7. Adding Values
  1. Columns
  2. Missing items
8. Table Constructor

#### **Part 4: Date and Time Functions**

1. Date and Time Functions Overviews
2. Units of Time
3. Creating a Calendar
  1. CALENDAR
  2. CALENDARAUTO
4. Dates
5. TODAY
6. NOW
7. TIME
8. TIMEVALUE

#### **Part 5: Filter Functions**

1. Filter Functions Overview
2. Filtering Tables
  1. FILTER
  2. REMOVEFILTERS
  3. ALL (ALL, ALLCROSSFILTERED, ALLEXCEPT, ALLNOBLANKROW, & ALLSELECTED)
  4. CALCULATETABLE
  5. KEEPFILTERS
3. CALCULATE
4. LOOKUPVALUE
5. SELECTEDVALUE

#### **Part 6: Financial functions**

1. Accrued Interest
  1. ACCRINT
  2. ACCRINTM
2. Depreciation
  1. DB

## 2. DDB

### Part 7: Relationships Functions

1. CROSSFILTERS
2. RELATED
3. RELATEDTABLE
4. USERELATIONSHIP
5. Parent and Child Functions
  1. PATH
  2. PATHCONTAINS
  3. PATHITEM
  4. PATHITEMREVERSE

### Part 8: Text functions

1. FIND
2. SEARCH
3. REPLACE
4. FORMAT
5. LOWER
6. UPPER
7. RIGHT
8. LEFT
9. COMBINEVALUES
10. CONCATENATE
11. CONCATENATEX
12. EXACT
13. FIXED
14. LEN
15. MID
16. SUBSTITUTE
17. TRIM
18. VALUE

### Part 9: Statistical functions

1. Central Tendencies
  1. Averages
  2. Means
  3. Geo means
2. Counting
  1. Counting and COUNTX
  2. Blanks, and rows
  3. Distinct count: distinct, approximate, no blank
3. Min/Max
  1. MAX, MAXA and MAXX
  2. MIN, MINA and MINX

4. Sample
5. Distributions
  1. Normal
  2. Exponential
  3. Beta
  4. Poisson
6. Inverse
7. Percentiles
8. Ranking
9. Standard Deviation
10. Variance
  1. VAR.P and VARX.P
  2. VAR.S and VARS.P

## 2. Audience/Prerequisites

Professionals who take this course need to be familiar with Microsoft Power BI's basic features and already feel comfortable with navigating both the Desktop and Online version of the tool. It is recommended to take our [Microsoft Power BI Boot Camp](#) prior to this course, or have equivalent work experience.

Some professionals who would find this course particularly beneficial include:

- Analysts
- Database Administrators
- Senior Business Intelligence Architects
- Business Intelligence Consultants
- Senior Business Analysts
- Digital Marketers
- Data Strategists
- IT Specialists
- IT Managers
- IT Directors
- Financial Specialists

## 3. In this class you will learn how to

- Apply a wide range of available DAX functions and when you should use them
- Manipulate data based on date, time, currency, integer values, and more
- Expertly analyze data using powerful statistical functions
- Build and manipulate tables with a wide range of data sources
- Design and analyze data using boolean logic
- Tease apart sophisticated data relationships to find insights
- Filter through large data sets quickly and effortlessly

- Work with and manipulate text values in Power BI