

# Course Synopsis

## Microsoft Power BI DAX



### **Duration: 1 day**

This course will cover the ability to use Data Analysis Expressions (DAX) language to perform powerful data manipulations within Power BI Desktop.

On our Microsoft Power BI course, you will learn how easy is to import data into the Power BI Desktop and create powerful and dynamic visuals that bring your data to life. But what if you need to create your own calculated columns and measures; to have complete control over the calculations you need to perform on your data? DAX formulas provide this capability and many other important capabilities as well. Learning how to create effective DAX formulas will help you get the most out of your data. When you get the information you need, you can begin to solve real business problems that affect your bottom line. This is Business Intelligence, and DAX will help you get there.

### **To get the most out of this course**

You should be a competent Microsoft Excel user. You don't need any experience of using DAX but we recommend that you attend our 2-day Microsoft Power BI course prior to taking this course.

### **What you will learn:-**

#### **Importing Your Data and Creating the Data Model**

*Overview of importing data into the Power BI Desktop and creating the Data Model.*

#### **Using DAX**

*Syntax used by DAX.  
Understanding DAX Data Types.*

#### **Creating Calculated Columns**

*How to use DAX expressions in Calculated Columns.  
Using AND and OR operators (&& and ||).  
Using BLANK and ISBLANK.  
Using RELATED to look up values from related tables.  
Understanding de-normalisation.*

#### **Creating Measures**

*Why use Measures and opposed to Calculated Columns?  
Implicit and Explicit Measures.  
How to Create Measures using SUM & AVERAGE  
Using COUNTROWS and DISTINCTCOUNT.  
Using DAX aggregate functions; SUMX, AVERAGEX etc*

#### **Evaluation Context**

*What is Evaluation Context?  
The difference between evaluations using Row Context and evaluations using Filter Context.*

#### **Working with Table Functions**

*Overview of DAX Functions that output Tables.  
Using ALL, FILTER and VALUES functions.  
Creating Parameter Tables.*

#### **CALCULATE Function**

*Exploring the importance of the CALCULATE function.  
Using complex filters within CALCULATE using FILTER.  
Using ALLSELECTED Function.*

#### **Time Intelligence Functions**

*Why Time Intelligence Functions?  
Creating a Date Table.  
Finding Month to Date, Year To Date, Previous Month and Same Period Last Year.  
Creating Moving Annual Totals and Moving Averages.*

#### **Working with Many-to-Many Relationships**

*The problem of Many-to-Many relationships.  
Creating a "Bridge Table".  
Exploring the concept of "Expanded Tables".*

#### **Advanced Calculated Columns**

*Using CALCULATE in a Calculated Column.  
Context Transition.  
Using COUNTROWS and FILTER in Calculated Columns.  
How the EARLIER function can be used in Row Context.*

