G COM SOLUTIONS

Power BI

Power BI

Tutor-Led and Self-Paced

Training Courses 2022

Contents

## Our Live Power BI Online Courses

Live Tutor-led Online Training

Like all our clients, we are having to come to terms with the Coronavirus public health threat and to adapt the way we work in response to government advice. Given the official guidelines regarding social distancing and the restriction of all but essential travel, we are now converting all of our public training courses into live, instructor-led online courses.

We will strive to ensure that our online courses provide all of the benefits of our classroom training sessions and are just as hands-on and interactive. Our online classes are not simply webinars and will still be in line with our philosophy of learning by doing.

The classes are small, with a maximum of eight delegates and each person is given remote access to a computer in our training centre and provided with lots of opportunities to practice all of the techniques being taught.

The Benefits of Live Online Training

• The training content is the same as our classroom schedule

• The training is delivered by the same trainers and to the same high standards

• Delegates are given access to a training workstation, just as with classroom courses

• Training is fully interactive and includes practical exercises

• You can book staff in different offices or even different countries onto the same course

• Online training reduces the cost of travel and accommodation down to zero

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G Com Solutions' Tutor-Led Online Training Solution

There are two key aspects to our live online training solution: collaboration and hands-on practice. Firstly, there is a need for the trainer and delegates to communicate; for the delegates to see the trainer's presentations and demonstrations and be able to ask questions as needed. And, secondly, the delegates must be given opportunities to practice the techniques and software features being taught while the trainer monitors their progress.

To enable collaboration between the trainer and delegates, we use an online video conferencing service (video is optional for delegates). Some training companies rely solely on the this type of service for delivering training. However, we feel that this approach provides the user with a hands-off, passive training experience.

We therefore add a second element by providing each delegate with remote access to one of the computers at our training centre. Each person can run software, manage files and carry out practical exercises, just as if they were sitting right in front of the training PC.

And, because the computers being used by delegates are physically right in front of the trainer in our training centre, our trainers can keep an eye on everyone's progress and provide instant guidance when anyone gets stuck.

Self-Paced Online Training

Although live, tutor-led training is almost always the most effective way of learning Power BI, complementing this with self-paced online courses is both convenient and cost-effective.

Our online courses help both beginners and experienced users extend their Power BI skills. They also follow the same topics as are covered on our tutor-led courses.

Our self-paced courses convey important topics via step-by-step demonstration and users are provided with all of the necessary resources to replicate the techniques shown as they learn.

Studying online offers complete flexibility. Students can access course material at any time, both at work and from home. With online training you save yourself the time and cost of travel and accommodation and you are not at the mercy of the elements.

You can approach learning in your own space and on your own terms. Depending on their requirements, students can space out their learning sessions or "binge" to get themselves up to speed on a topic as quickly as possible.

Access all Self-Paced Courses with a Single Annual or Montly Subscription

Delegates	Annual	Monthly
1 Person	£375	£39
Up to 10	£2,450	£255
Up to 20	£4,700	£490
Up to 30	£6,750	£700
Up to 40	£8,600	£895
Up to 50	£10,250	£1,075
Up to 60	£11,700	£1,230
Up to 70	£13,300	£1,365
Up to 80	£14,400	£1,480
Up to 90	£15,300	£1,580
Up to 100	£16,000	£1,660

N.B. When self-paced courses are purchased individually, users are given 2 years' access to the course.

Dual Online Training Solution (D.O.T.S.)

Our Dual Online Training Solution (D.O.T.S.) provides your staff with two modes of training: live instructor-led training is followed with one-year's access to the self-paced version of the same course.

The material covered in the live training will be very similar to that covered in the self-paced video training. So, the self-paced training provides a very effective form of post-training reinforcement.

The PDF courseware covers both the live, tutor-led sessions taken by each delegate and the self-paced training undertaken as a follow-up.

Our courseware ties the two forms of training together and helps to keep topics fresh in delegates' minds.

For really effective Power BI training just join the D O T S

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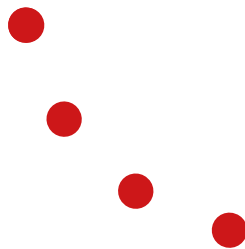
Booking a Course

If you wish to make a telephone booking, or if you would like to ask a few questions before booking, you can call us free on 0800 989 248.

To check the latest course dates and availability of places, visit our web site: http://www.gcomsolutions.co.uk. Here you will find the most up to date information regarding course dates. (In addition to the courses listed in this booklet, we may also run extra courses in response to high demand.)

The fastest method of securing a place on one of our courses is to book on line and pay by credit card. A confirmation with joining instructions will then be sent out to you.

When you book online you can opt to pay by cheque or bank transfe; in which case we will email you a booking form and pro forma invoice. To secure your place, you will need to sign the booking form and return it to us with your payment.

Naturally, you can also simply email us with details of the course(s) in which you are interested, and the names of your delegates, at admin@gcomsolutions.co.uk.

Bulk Purchase

If you work for a large organisation and are about to book a course, it may be worth consulting your human resources department to see if colleagues in other departments may be interested in any of our courses. If so, why not pool your resources and buy as a group to stretch your training budget a bit further.

This brochure gives full details of our bulk purchase pricing on instructor-led, self-paced and D.O.T.S. training courses.

You can make bulk purchases on line, at www.gcomsolutions.co.uk. Or, if you would like more information, please call us on 0800 998 9248.
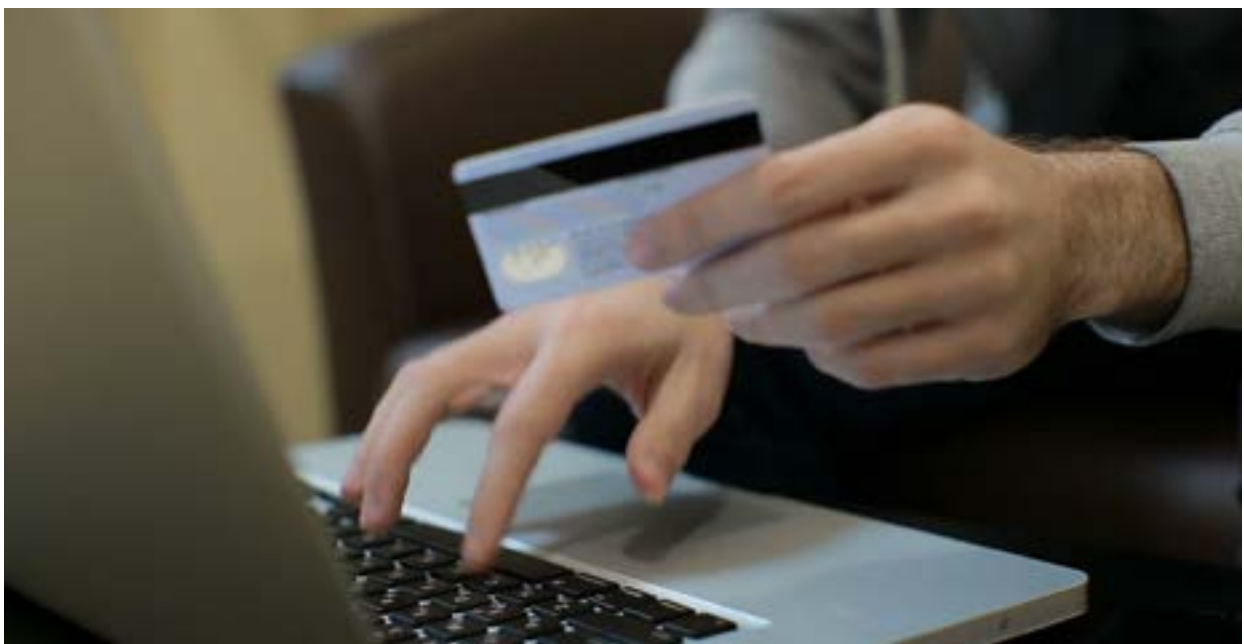
Intensive "Fast-Track" Training Courses

Ideally, when learning software, one starts with a beginner's course then, after a few weeks or months of practice, one moves on to some advanced training. Some people, however, find themselves in a situation where they need to learn programs very rapidly in order to address projects which have been thrust upon them.

Our fast track specials have been designed for people who find themselves in this situation. These courses offer delegates the fast track approach to training, typically containing basic to advanced material usually covered in a one week cycle.

We run three such courses.

Power BI 1-Week Intensive Course for Power Users

This course consists of three individual courses:

Power BI Introduction
Power BI Intermediate
Power BI Advanced

Power BI DAX 3-Day Intensive Course

This course also consists of three individual courses:

Power BI DAX Introduction
Power BI DAX Intermediate
Power BI DAX Advanced

Power Query and M 3-Day Intensive Course

This course also consists of three individual courses:

Power Query and M Introduction
Power Query and M Intermediate
Power Query and M Advanced

Staggering Fast-Track Courses

Booking our fast-track courses qualifies you for a discount, and the good news is that you don't even have to take the whole cycle of courses in one hit.

When you book the course, we have no objection to your staggering the various courses across several months.

You might consider taking this approach if you want the benefit of a fast-track price but don't actually have to get up to speed in double-quick time.
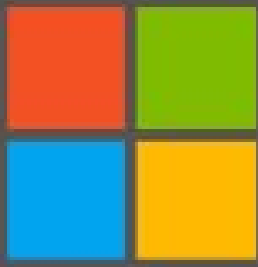
Microsoft

Our Live Power BI Online Courses

Power BI 1-Week Intensive Course

£1,675 (TUTOR-LED)		**£295** (SELF-PACED)		**£1,825** (TUTOR-LED + SELF-PACED)	

TUTOR-LED PUBLIC ONLINE TRAINING COURSE DATES 2022

10-14 Jan	14-18 Feb	14-18 Mar	25-29 Apr	16-20 May	20-24 Jun
25-29 Jul	18-22 Aug	12-16 Sep	10-14 Oct	7-11 Nov	5-9 Dec

The Power BI 1 Week Intensive Course for Power Users offers comprehensive coverage of both basic and advanced features of Microsoft Power BI. This course is designed for users who are new to Power BI, but who intend to use the program extensively in their business workflows.

You should consider taking this course when your company has recently adopted, or are about to adopt Power BI; and you will be playing a pivotal, hands-on role in content-creation and sharing using Power BI Desktop and the Power BI service.

The course consists of three components: Power BI Introduction, Power BI Intermediate and Power BI Advanced.

Power BI Introduction
(2 days)

Our introduction to Power BI will familiarize users with the key features and operations of the Power BI suite. By the end of this course, delegates will be confident in using the three main components of Power BI: Power BI Desktop, the Power BI Service, and Power BI Mobile Apps.

Key Topics Covered

- Getting started
- Connecting to software services
- Getting data into Power BI
- Cleaning up and transforming data
- Data modelling
- Using DAX
- Creating reports
- Creating visualizations
- Publishing content
- Creating Power BI Mobile Content
- Consuming and customizing content
- Refreshing content

Power BI Intermediate
(1 day)

Our intermediate Microsoft Power BI training course delves deeper into the Query Editor and DAX formulas; it discusses Excel and PowerPoint integration; and shows delegates how to use custom visuals to construct interactive data narratives for their audience.

Key Topics Covered

- Parameters and Templates
- Power Query Functions
- DAX Time Intelligence
- What If Parameters
- Excel Integration
- Custom visuals
- Business narration
- PowerPoint integration

Power BI Advanced
(2 days)

This course provides in-depth coverage of the Power Query M language as well as the use of advanced DAX formulas. Delegates will also learn how to improve the user experience through the use of parameter tables; how to optimize the data model by the strategic use of calculated tables; and how to work with advanced visuals and dashboard tiles.

Key Topics Covered

- The Power Query Formula Language
- Understanding Automatically Generated Code
- Creating custom functions in M
- Iteration Techniques
- Advanced DAX
- Working with calculated tables
- Using parameter tables
- Using ArcGIS Maps for Power BI
- Using R Visualizations and Datasets
- Advanced dashboard tiles

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Power BI 1-Week Intensive Course

Private Corporate Training Options

Delegates	Tutor-Led	Self-Paced (2 yrs)	DOTS
Up to 10	£4,975	£1,900	£6,400
Up to 20	£9,750	£3,700	£12,525
Up to 30	£14,250	£5,250	£18,185
Up to 40	£18,600	£6,800	£23,700
Up to 50	£22,625	£8,000	£28,625
Up to 60	£26,550	£9,300	£33,525
Up to 70	£30,100	£10,500	£37,975
Up to 80	£33,600	£11,200	£42,000
Up to 90	£36,675	£12,150	£45,785
Up to 100	£39,750	£12,500	£49,125

Power BI Introduction (2 days)

£790	£120	£850

Our introduction to Power BI will familiarize users with the key features and operations of the Power BI suite. By the end of this course, delegates will be confident in using the three main components of Power BI: Power BI Desktop, the Power BI Service, and Power BI Mobile Apps.

Getting started

Key components of Power BI; What is Power BI Desktop; Power BI service; Power BI free vs Power BI Pro; Power BI vs Excel add-ins; Dashboards, reports & datasets

Connecting to software services

Understanding content packs for services; Google Analytics content pack; Salesforce content pack; Microsoft Dynamics CRM content pack

Getting data into Power BI

Connecting to data sources in the Power BI service; Connecting to data sources in Power BI Desktop; Importing excel workbooks; Importing Access databases; Connecting to SQL Server

Cleaning up and transforming data

Using the Query Editor; Creating a query; Understanding query steps; Automatically generated steps; Removing query steps; Modifying query steps; Renaming columns; Reordering and removing columns; Changing data types; The close & apply command

Data modelling

Working in data view; Working in relationship view; Auto-detection of table relationships; Creating table relationships manually; Setting cardinality; Cross filter direction

Using DAX

Creating Calculated columns; Creating measures; Understanding row context; Understanding filter context; The SUMX function; The CALCULATE function; The ALL function; The FILTER function; Using time intelligence functions

Creating reports

Working in report view; Creating tables and key metrics; Working with the matrix visual; Filtering data with slicers

Creating visualizations

Creating column and bar charts; Creating line and area charts; Creating scatter charts; Treemap visualizations; Using charts as slicers; Using maps with geographical data; Using custom visuals in your reports

Publishing content

Publishing Power BI Desktop reports; Printing and exporting dashboards and reports; Creating Groups in the Power BI service; Creating content Packs; Assigning groups to content packs; Sharing dashboards with your organization; Publishing reports to the web; Embedding a report in a web page

Creating Power BI Mobile Content

Optimising visuals for small viewports; Creating a phone version of a dashboard; Creating phone-optimised reports

Consuming and customizing content

Browsing group content; Using content packs; Creating read-only versions; Using Quick Insights in Power BI; Creating dashboards from your reports; Querying with natural language; Creating custom Q & A suggestions

Refreshing content

Setting up a personal gateway; Customizing dataset refresh settings; Scheduling a refresh frequency; Setting up enterprise gateways; Managing enterprise gateways; Adding and removing data sources, Creating live connections to data

Power BI Introduction (2 days)

Private Corporate Training Options

Delegates	Tutor-Led	Self-Paced (2 yrs)	DOTS
Up to 10	£1,990	£800	£2,590
Up to 20	£3,980	£1,500	£5,105
Up to 30	£5,940	£2,100	£7,515
Up to 40	£7,840	£2,800	£9,940
Up to 50	£9,750	£3,250	£12,185
Up to 60	£11,580	£3,900	£14,505
Up to 70	£13,370	£4,200	£16,520
Up to 80	£15,120	£4,400	£18,420
Up to 90	£16,830	£4,950	£20,543
Up to 100	£18,600	£5,000	£22,350

Power BI Intermediate (1 day)

£790	£120	£850

This one day intermediate level course is designed for users who are already familiar with Power BI and are looking to broaden their horizons when it comes to designing reports and dashboards.

The course delves deeper into the Query Editor and the DAX language; it discusses Excel and PowerPoint integration; and shows delegates how to use bookmarks and custom visuals to construct interactive data narratives for their audience.

Parameters and Templates

Benefits of parameters and templates; Creating parameters; Parameter value types; Parameterizing data sources; parameterizing filters; Creating a template; Using a template

Power Query Functions

Converting a query to a function; Understanding function syntax; Invoking a function

DAX Time Intelligence

Calendar tables; Power BI Auto Date/Time feature; The TOTALYTD function; Specifying end of fiscal year;

Calculating running totals; the SAMEPERIODLASTYEAR function; the PARALLELPERIOD function; Using the DATEADD function for maximum flexibility

What If Parameters

Creating a what-if parameter; Specifying limits; Referencing the parameter measure; Incorporating parameter values in your model

Excel Integration

Analyze in Excel; Installing Power BI Publisher for Excel; Creating pivot table reports from Power BI data sources; The importance of data types; Error – The field that you are moving cannot be placed in that PivotTable area; Pinning Excel content to a Power BI dashboard

Custom visuals

Overview of custom visuals; Chiclet Slicer; Timeline; Advanced Time Slicer; Hierarchy Slicer; Synoptic Panel; Waffle Chart; Percentile Chart; Box and Whisker; Histogram; Bullet Chart; KPI Indicator; GlobeMap; Table Heatmap; WordCloud

Business narration

Planning narratives; Self-running narratives; Interactive narratives; Using the Pulse chart visual; Using the Scroller visual; Using Narratives for Power BI; Using video clips in your visuals

PowerPoint integration

Constructing a narrative in PowerPoint, Using export to PowerPoint, Embedding live reports into a PowerPoint presentation

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Power BI Intermediate (1 day)

Private Corporate Training Options

Delegates	Tutor-Led	Self-Paced (2 yrs)	DOTS
Up to 10	£995	£800	£1,595
Up to 20	£1,990	£1,500	£3,115
Up to 30	£2,985	£2,100	£4,560
Up to 40	£3,980	£2,800	£6,080
Up to 50	£4,975	£3,250	£7,413
Up to 60	£5,940	£3,900	£8,865
Up to 70	£6,895	£4,200	£10,045
Up to 80	£7,840	£4,400	£11,140
Up to 90	£8,775	£4,950	£12,485
Up to 100	£9,750	£5,000	£13,500

Power BI Advanced (2 days)

£790	**£120**	**£850**

TUTOR-LED PUBLIC ONLINE TRAINING COURSE DATES 2022

13-14 Jan	17-18 Feb	17-18 Mar	28-29 Apr	19-20 May	23-24 Jun
28-29 Jul	21-22 Aug	15-16 Sep	13-14 Oct	10-11 Nov	8-9 Dec

This Power BI Advanced training course is aimed at experienced Power BI users. The course delves into the M language behind the Query Editor, as well as the use of advanced DAX formulas. Delegates will also learn how to improve the user experience through the use parameter tables; and how to centralise their data by using dataflows and shared datasets.

Data Centralisation

The importance of data centralisation, Creating Dataflows, Gateway configuration, refreshing dataflows, Building reports from dataflows, Centralising datasets, Certifying datasets, Building reports from datasets

The Power Query Formula Language

Using The Formula Bar; Using The Advanced Editor; Overview Of The M Language; Exploring M using #shared

Understanding M Code

Excel.Workbook; File.Contents; Table.TransformColumns; Table.TransformColumnTypes; Table.UnpivotColumns; Table.UnpivotOtherColumns

Creating custom functions in M

Defining a function; Defining input parameters; The goes-to operator; Defining the function body; Using optional parameters; Calling functions

Iteration Techniques

Benefit of generating lists; Generating lists of numbers; Generating lists of dates; Generating alphanumeric lists; Using the each function; Applying a function to a list of files

Advanced dashboard tiles

Adding custom links to a dashboard, Using the web content widget, Using the video widget, Real-time streaming dashboard tiles

Advanced DAX

Using DAX Studio, Writing complex formulas, Using variables, Calculating moving averages, Calculating running totals, Percentile calculations, Creating advanced time intelligence formulas, Using multiple date tables, Working with non-standard calendars

Working with calculated tables

Creating calculated tables, DAX functions that return tables, The CALCULATETABLE function, The ADDCOLUMNS function, The SUMMARIZE function, SUMMARIZE with ROLLUP, VALUES and DISTINCT functions, The CROSSJOIN function, The TOPN function, The ROW function, Using calculated tables within the data model

Using parameter tables

What is a parameter table, When to use parameter tables, Using the HASONEVALUE function, Using the VALUES function, Creating custom slicers, Creating multiple parameter table solutions

Advanced Data Modelling and Visualization

Working with multiple fact tables, Using active and inactive relationships, Using the USERELATIONSHIP function, Creating dynamic visual properties, Using BLANK() to make visibility dynamic

Power BI Advanced (2 days)

Private Corporate Training Options

Delegates	Tutor-Led	Self-Paced (2 yrs)	DOTS
Up to 10	£1,990	£800	£2,590
Up to 20	£3,980	£1,500	£5,105
Up to 30	£5,940	£2,100	£7,515
Up to 40	£7,840	£2,800	£9,940
Up to 50	£9,750	£3,250	£12,185
Up to 60	£11,580	£3,900	£14,505
Up to 70	£13,370	£4,200	£16,520
Up to 80	£15,120	£4,400	£18,420
Up to 90	£16,830	£4,950	£20,543
Up to 100	£18,600	£5,000	£22,350

DAX 3-Day Intensive Course

TUTOR LED **£1,050**	SELF PACED **£295**	TUTOR LED + SELF PACED **£1,195**	

TUTOR-LED PUBLIC ONLINE TRAINING COURSE DATES 2022

2-4 Feb	11-13 Apr	8-10 Jun	10-12 Aug	26-28 Oct	

Our three-day DAX Intensive Training Course is designed for Power BI users who find themselves struggling with Power BI's Data Analysis Expressions (DAX) formulas and would like to obtain a throrough grounding in this important data modelling formula langauge.

This Intensive training starts from the fundamentals and works through to advanced topics.

The course consists of three modules (which can be also taken separately): DAX Introduction, DAX Intermediate and DAX Advanced.

DAX Introduction
(1 day)

In this one-day tutor-led online Introduction to Power BI Data Analysis Expressions (DAX), delegates will learn the fundamentals of the DAX language. By the end of the course, delegates will be confident in creating basic calculated columns, calculated tables and calculated measures.

Key Topics Covered
• Calculated Columns
• DAX Syntax
• Calculated Tables
• Measures
• Iterator Functions
• Understanding Calculation Contexts
• CALCULATE Function Basics.

DAX Intermediate
(1 day)

In this one-day Power BI DAX Intermediate traininig course, which is suitable for experienced Power BI users who are already familiar with DAX fundamentals, delegates will delve deeper into the DAX functional language and learn how to use DAX to make their reports more responsive to user interaction.

Key Topics Covered
• Dynamic Titles
• Interacting with the User
• Dynamic Formatting
• Ranking with DAX
• DAX Time Intelligence
• Semi-Additive Measures

DAX Advanced
(1 day)

In this one-day Power BI DAX Advanced Training Course, which is suitable for experienced Power BI users who are already comfortable with writing complex DAX formulas, delegates will look at the advanced aspects of DAX. By the end of this course, delegates should feel far more confident in writing complex DAX measures.

Key Topics Covered
• Calculation groups
• Exposing DAX to the User
• Grouping Functions
• Combining Tables with DAX
• Manipulating Filters
• Data Lineage
• Debugging DAX Code

DAX 3-Day Intensive Course

Private Corporate Training Options

Delegates	Tutor-Led	Self-Paced (2 yrs)	DOTS
Up to 10	£2,985	£1,900	£4,410
Up to 20	£5,940	£3,700	£8,715
Up to 30	£8,775	£5,250	£12,713
Up to 40	£11,580	£6,800	£16,680
Up to 50	£14,250	£8,000	£20,250
Up to 60	£16,830	£9,300	£23,805
Up to 70	£19,425	£10,500	£27,300
Up to 80	£21,840	£11,200	£30,240
Up to 90	£24,165	£12,150	£33,278
Up to 100	£26,550	£12,500	£35,925

DAX Introduction (1 day)

£395	£120	£455

TUTOR-LED PUBLIC ONLINE TRAINING COURSE DATES 2022

2 Feb	11 Apr	8 Jun	10 Aug	26 Oct	

In this one-day tutor-led online Introduction to Power BI Data Analysis Expressions (DAX), delegates will learn the fundamentals of the DAX language. By the end of the course, delegates will be confident in creating basic calculated columns, calculated tables and calculated measures.

Getting Started
DAX Overview

DAX Objects

Calculated Columns
Calculated Columns versus M Computed Columns

Creating Calculated Columns

Calculated Columns versus Measures

Calculated Columns, Measures and Visuals

DAX Syntax
Referring to Objects

DAX Operators

Using Variables

Calculated Tables
Creating Calculated Tables

Creating a Date Table

Cloning a Table

Using the DISTINCT Function

Using the FILTER Function

Measures
Creating a Measures Table

Implicit Measures

Measures and the Filter Context

Basic Aggregation Functions

Logical Functions

Iterator Functions
Implicit and Explicit Iteration

The SUMX Function

The AVERAGEX Function

The COUNTX Function

Calculation Contexts

Understanding Calculation Contexts
The Row Context

The Filter Context

Context Transition

CALCULATE Function Basics
CALCULATE Overview

Using CALCULATE with Booleans

Using CALCULATE with FILTER

Using CALCULATE with ALL

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DAX Introduction (1 day)

Private Corporate Training Options

Delegates	Tutor-Led	Self-Paced (2 yrs)	DOTS
Up to 10	£995	£800	£1,595
Up to 20	£1,990	£1,500	£3,115
Up to 30	£2,985	£2,100	£4,560
Up to 40	£3,980	£2,800	£6,080
Up to 50	£4,975	£3,250	£7,413
Up to 60	£5,940	£3,900	£8,865
Up to 70	£6,895	£4,200	£10,045
Up to 80	£7,840	£4,400	£11,140
Up to 90	£8,775	£4,950	£12,485
Up to 100	£9,750	£5,000	£13,500

DAX Intermediate (1 day)

	£395		£120		£455

TUTOR-LED PUBLIC ONLINE TRAINING COURSE DATES 2022

3 Feb	12 Apr	9 Jun	11 Aug	27 Oct	

In this one-day Power BI DAX Intermediate traininig course, which is suitable for experienced Power BI users who are already familiar with DAX fundamentals, delegates will delve deeper into the DAX functional language and learn how to use DAX to make their reports more responsive to user interaction.

Dynamic Titles

Using the SELECTEDVALUE Function

Nesting the SELECTEDVALUE Function

Using CONCATENATEX with Dynamic Titles

Interacting with the User

The USERNAME Function

Displaying the last refresh date and time

Creating dynamic Accessibility Alt tags

Dynamic Formatting

Creating Measures which Return RAG Colours

Creating Measures which Return Images

Ranking with DAX

The RANKX Function

Ranking Within a Group

Using the TOPN Function

DAX Time Intelligence

Power BI Auto Date/Time Feature

Calendar Tables

Automatic vs Manual Time Intelligence

The TOTALYTD, TOTALQTD and TOTALMTD functions

The SAMEPERIODLASTYEAR Function

Using the DATEADD Function for Maximum Flexibility

The PARALLELPERIOD Function

Calculating Running Totals

Using DATESINPERIOD for MAT and 3MMA

Semi-Additive Measures

What is a Semi-Additive Measure?

Creating a Semi-Additive Measure

Non-Additive Visualization

Additive Visualization

DAX Intermediate (1 day)

Private Corporate Training Options

Delegates	Tutor-Led	Self-Paced (2 yrs)	DOTS
Up to 10	£995	£800	£1,595
Up to 20	£1,990	£1,500	£3,115
Up to 30	£2,985	£2,100	£4,560
Up to 40	£3,980	£2,800	£6,080
Up to 50	£4,975	£3,250	£7,413
Up to 60	£5,940	£3,900	£8,865
Up to 70	£6,895	£4,200	£10,045
Up to 80	£7,840	£4,400	£11,140
Up to 90	£8,775	£4,950	£12,485
Up to 100	£9,750	£5,000	£13,500

DAX Advanced (1 day)

£395   £120   £455

In this one-day Power BI DAX Advanced Training Course, which is suitable for experienced Power BI users who are already comfortable with writing complex DAX formulas, delegates will look at the advanced aspects of DAX. By the end of this course, delegates should feel far more confident in writing complex DAX measures.

Calculation groups

Overview of Calculation Groups

Overview of Tabular Editor

Creating a Calculation Group

SELECTEDMEASURE and SELECTEDMEASURENAME

Using Calculation Groups with Time Intelligence

Exchanging Measures using Calculation Groups

Defining Format Strings

Making Format Strings Dynamic

Exposing DAX to the User

Using DAX What-if Parameters

The GENERATESERIES Function

Letting the User Control your DAX Measures

Grouping Functions

SUMMARIZE

SUMMARIZECOLUMNS

GROUPBY BY

Combining Tables with DAX

UNION

CROSSJOIN

INTERSECT

EXCEPT

Manipulating Filters

ALL and ALLEXCEPT

ALLSELECTED and ALLCROSSFILTERED

REMOVEFILTERS and KEEPFILTERS

EARLIER and EARLIEST

The USERELATIONSHIP Function

Data Lineage

What is Data Lineage?

Operations which can break data lineage

Controlling data lineage with the TREATAS Function

Debugging DAX Code

Using the Performance Analyzer

Running Code in DAX Studio

Using Define Measure

Using Define Dependent Measures

Redefining Measures

Private Corporate Training Options

Delegates	Tutor-Led	Self-Paced (2 yrs)	DOTS
Up to 10	£995	£800	£1,595
Up to 20	£1,990	£1,500	£3,115
Up to 30	£2,985	£2,100	£4,560
Up to 40	£3,980	£2,800	£6,080
Up to 50	£4,975	£3,250	£7,413
Up to 60	£5,940	£3,900	£8,865
Up to 70	£6,895	£4,200	£10,045
Up to 80	£7,840	£4,400	£11,140
Up to 90	£8,775	£4,950	£12,485
Up to 100	£9,750	£5,000	£13,500

Power Query & M 3-Day Intensive Course

£1,050	£295	£1,195

TUTOR-LED PUBLIC ONLINE TRAINING COURSE DATES 2022

2-4 Feb	11-13 Apr	8-10 Jun	10-12 Aug	26-28 Oct	

Our three-day Power Query and M Intensive Training Course is designed for Power BI users who would like to obtain a throrough grounding in Power Query's data cleansing and transformation capabilities as well learning the M language. The intensive course starts from the fundamentals and works through to advanced topics.

The course consists of three modules (which can be also taken separately): Power Query and M Introduction, Power Query and M Intermediate and Power Query and M Advanced

Power Query and M Introduction
(1 day)

In this one-day Introduction to Power Query and M, delegates will learn to use the Power Query interface to perform a wide variety of useful transformations on data, making it ready for use in the data model.

Key Topics Covered
• Power Query Essentials
• Data Sources
• Manipulating Columns
• Manipulating Rows
• Reshaping Data
• Combining queries

Power Query and M Intermediate
(1 day)

Our 1-day Power Query and M Intermediate course is designed for experienced Power BI users. It shows delegates how to control and customize the operations initially performed using the Power Query interface.

Key Topics Covered
• Data Loading and Query Dependencies
• Using the Advanced Editor
• Using Parameters
• Parameters and Incremental Refresh
• Assessing Data Quality
• Reducing the Cardinality of Columns
• Creating Non-Tabular Queries

Power Query and M Advanced
(1 day)

This 1-day Power Query and M Advanced course is designed to provide experienced Power BI users with an in-depth understanding of advanced Power Query Functionality and the M language.

Key Topics Covered
• Dataflows; M Language Essentials
• Creating Custom Functions In M
• Coding Data Source Connections
• Time-Sensitive Operations
• Coding Table Operations
• Error Handling
• AI Insights

Power Query & M 3-Day Intensive Course

Private Corporate Training Options

Delegates	Tutor-Led	Self-Paced (2 yrs)	DOTS
Up to 10	£2,985	£800	£3,585
Up to 20	£5,940	£1,500	£7,065
Up to 30	£8,775	£2,100	£10,350
Up to 40	£11,580	£2,800	£13,680
Up to 50	£14,250	£3,250	£16,685
Up to 60	£16,830	£3,900	£19,755
Up to 70	£19,425	£4,200	£22,575
Up to 80	£21,840	£4,400	£25,140
Up to 90	£24,165	£4,950	£27,875
Up to 100	£26,550	£5,000	£30,300

Power Query & M Introduction (1 day)

	£395		£120		£455

TUTOR-LED PUBLIC ONLINE TRAINING COURSE DATES 2022

2 Feb	11 Apr	8 Jun	10 Aug	26 Oct	

Power Query is a robust data connection and transformation tool which is built into Power BI and which allows you to connect to data from a wide variety of sources and then transform that data into exactly the right shape and format for your reporting needs. In this one-day Introduction to Power Query and M, delegates will learn to use the Power Query interface to perform a wide variety of useful transformations on data, making it ready for use in the data model.

Power Query Essentials

Power Query Overview; Transforming and Loading Data; Queries vs Tables; Working with Applied Steps; Adding Metadata to Steps

Data Sources

Connecting to Files; Connecting to Folders; Connecting to Web Data; Connecting to Databases; Modifying Data Sources; Data Source Credentials; Using PBIDS Files

Manipulating Columns

Navigating Columns; Selecting and Removing Columns; Column Data Types; Data Type Conversion; Splitting Columns; Combining Columns; Extracting Characters

Manipulating Rows

Filtering Text Columns; Filtering Numeric Columns; Filtering Date Columns; Removing Rows; Removing Duplicates; Removing Errors; Replacing Values and Errors; Using Fill Down

Reshaping Data

Transpose; Unpivot Columns; Pivot; Split by Rows

Combine queries

Append Queries; Merge Queries; Join Kind; Left Outer; Inner; Left Anti; Right Outer; Full Outer; Fuzzy Matching

Power Query & M Introduction (1 day)

Private Corporate Training Options

Delegates	Tutor-Led	Self-Paced (2 yrs)	DOTS
Up to 10	£995	£800	£1,595
Up to 20	£1,990	£1,500	£3,115
Up to 30	£2,985	£2,100	£4,560
Up to 40	£3,980	£2,800	£6,080
Up to 50	£4,975	£3,250	£7,413
Up to 60	£5,940	£3,900	£8,865
Up to 70	£6,895	£4,200	£10,045
Up to 80	£7,840	£4,400	£11,140
Up to 90	£8,775	£4,950	£12,485
Up to 100	£9,750	£5,000	£13,500

Power Query & M Intermediate (1 day)

£395	£120	£455

TUTOR-LED PUBLIC ONLINE TRAINING COURSE DATES 2022

3 Feb	12 Apr	9 Jun	11 Aug	27 Oct	

Our 1-day Power Query and M Intermediate course is designed for experienced Power BI users. It shows delegates how to control and customize the operations initially performed using the Power Query interface.

Data Loading and Query Dependencies

Duplicating and Referencing Queries

Disabling Data Loading

Using Query Dependencies view

Using the Advanced Editor

M Language Overview

Using the Formula Bar

Using the Advanced Editor

Understanding Variable Declaration

Editing M Code

Using Parameters

Parameters Overview

Parameterizing Data Source Information

Parameterizing Date Ranges

Applying Parameters as Filters

Using Merge Queries to Extend Parameter Filtering

Using Static Lists for Parameter Input

Using Dynamic Lists for Parameter Input

Using Parameters in a Template

Parameters and Incremental Refresh

RangeStart and RangeEnd Parameters

Filtering the Main DateTime Column

Ensuring that Query Folding Will Occur

Configuring Incremental Refresh

Assessing Data Quality

Show Whitespace

Column Quality

Column Distribution

Column Profile

Column Profiling Based on Entire Dataset

Using the Table.Profile Function

Reducing the Cardinality of Columns

Overview of Column Cardinality

Optimizing Data Types

Isolating Data Types by Splitting

Reducing Cardinality by Grouping

Creating Non-Tabular Queries

Returning Earliest and Latest Dates

Replacing Errors with an Average Value

Dealing with Errors

DataFormat.Error

Expression.Error

DataSource.Error

Using the Keep Errors Command

Identifying Rows with Errors by Duplicating Columns

Private Corporate Training Options

Delegates	Tutor-Led	Self-Paced (2 yrs)	DOTS
Up to 10	£995	£800	£1,595
Up to 20	£1,990	£1,500	£3,115
Up to 30	£2,985	£2,100	£4,560
Up to 40	£3,980	£2,800	£6,080
Up to 50	£4,975	£3,250	£7,413
Up to 60	£5,940	£3,900	£8,865
Up to 70	£6,895	£4,200	£10,045
Up to 80	£7,840	£4,400	£11,140
Up to 90	£8,775	£4,950	£12,485
Up to 100	£9,750	£5,000	£13,500

Power Query & M Advanced (1 day)

£395   £120   £455

TUTOR-LED PUBLIC ONLINE TRAINING COURSE DATES 2022

4 Feb	13 Apr	10 Jun	12 Aug	28 Oct	

This 1-day Power Query and M Advanced course is designed to provide experienced Power BI users with an in-depth understanding of advanced Power Query Functionality and the M language. By the end of this course delegates will be comfortable writing M code from scratch.

Dataflows

Overview of Dataflows

Azure Data Lake; Using Power Query Online; Transferring Queries from Power BI Desktop

M Language Essentials

Why Learn M?; Working with M in the Query Editor; The nature of the M language; The let ... in statement block; Comments in M; Variables in M; Built-in (primitive) data types; Complex data types; Lists, Records and Tables; Exploring M Using #Shared

Creating Custom Functions In M

Converting a Query to a Function; Referencing parameters; Using Invoke Custom Function; Understanding Function Syntax; Writing you own Functions; Defining Input Parameters; The Goes-To Operator; Defining The Function Body; Using Optional Parameters; Calling Functions Inside Queries

Coding Data Source Connections

Csv.Document; Excel.Workbook; Combining Different Source Types; Sql.Database and Sql.Databases; Creating a Development lifecycle Solution

Time-Sensitive Operations

DateTime.LocalNow; Connecting to a Time-Sensitive File Name; Importing the most recent file in a folder

Coding Table Operations

Table.SelectColumns versus Table.RemoveColumns; Table.SelectRows; Table.SelectRowsWithErrors; Table.Transformcolumns; Table.Transformcolumntypes; Table.Unpivotcolumns; Table.Unpivotothercolumns

Error Handling

DataFormat.Error; Expression.Error; DataSource.Error; Using the Keep Errors Command; Identifying Rows with Errors by Duplicating Columns; Defensive Coding; Using try statements; Raising Errors; Enforcing Business Rules

AI Insights

Summary of AI Insights; AI Insights Requirements; Accessing AI Insights; Selecting a Premium Capacity; Text Analytics; Vision; Using Text Analytics; Detect Language; Automatically Generated AI Functions; Score Sentiment; Extract Key Phrases;

Power Query & M Advanced (1 day)

Private Corporate Training Options

Delegates	Tutor-Led	Self-Paced (2 yrs)	DOTS
Up to 10	£995	£800	£1,595
Up to 20	£1,990	£1,500	£3,115
Up to 30	£2,985	£2,100	£4,560
Up to 40	£3,980	£2,800	£6,080
Up to 50	£4,975	£3,250	£7,413
Up to 60	£5,940	£3,900	£8,865
Up to 70	£6,895	£4,200	£10,045
Up to 80	£7,840	£4,400	£11,140
Up to 90	£8,775	£4,950	£12,485
Up to 100	£9,750	£5,000	£13,500

Power BI Administration (2 days)

£790   £120   + £850

TUTOR-LED PUBLIC ONLINE TRAINING COURSE DATES 2022

7-8 Feb	14-15 Apr	12-13 May	11-12 Jul	29-30 Sep	24-25 Nov

Our Power BI Administration training course covers the key administrative activities which can be carried within a Power BI tenant. Students will understand the implications of choices made using Power BI Tenant Settings and become familiar with the aspects of the Power BI service which are controlled by both global admins and Power BI service admins.

Getting Started

Power BI Administration Overview; Assigning Admin Roles in the Microsoft 365 Admin Centre; Assigning Admin Roles in Azure Active Directory

Tenant Setup

Creating a Power BI Tenant; Corporate Branding; Installing Power BI Desktop; Power BI Licensing; Power BI Tenant Settings

Workspace Management

Designing Workspace Structures; Workspace Settings; My Workspace; Workspace Creation; Assigning Workspace Roles; Using Deployment Pipelines

Data Governance

Live Data Connections versus Exporting; Centralizing Data Cleansing with Dataflows; Centralizing Data with Shared Datasets; Using PBIDS Files; Using Microsoft Dataverse; Choosing a Storage Mode; Using Data Source Parameters; Promoting and Certifying Datasets; Granting Access to Datasets; On-Premises Data Gateway Setup; Creating Refresh Schedules; Implementing Incremental Refresh; Large Dataset Storage Format

Content Administration

Reports and Dashboards Compared; Uploading Excel Workbooks; Creating a Template with Parameters; Controlling the Use of Custom Visuals; Making Content Accessible; Endorsing Content; Creating Subscriptions; Configuring Data Alerts; Using Sensitivity Labels

Sharing Administration

Using data classification for dashboards, Activating the Power BI Embedded API, Monitoring embed codes used for Publish to Web, Registering corporate custom visuals

Perimetric Administration

Giving Access to External Users; Using Publish to Web; Allowing Users to Copy Visuals; Allowing Users to Export Reports

Power BI Administration (2 days)

Private Corporate Training Options

Delegates	Tutor-Led	Self-Paced (2 yrs)	DOTS
Up to 10	£1,990	£800	£2,590
Up to 20	£3,980	£1,500	£5,105
Up to 30	£5,940	£2,100	£7,515
Up to 40	£7,840	£2,800	£9,940
Up to 50	£9,750	£3,250	£12,185
Up to 60	£11,580	£3,900	£14,505
Up to 70	£13,370	£4,200	£16,520
Up to 80	£15,120	£4,400	£18,420
Up to 90	£16,830	£4,950	£20,543
Up to 100	£18,600	£5,000	£22,350

£3,980 **£1,900** **£2,590**

PRIVATE TUTOR-LED TRAINING	SELF-PACED ONLINE TRAINING	OR BOTH

(ON-DEMAND ONLY. NO SCHEDULED PUBLIC COURSES ARE HELD.)

DAY ONE: PREPARE THE DATA

Get data from different data sources
Identify and connect to a data source; Change data source settings; Select a shared dataset or create a local dataset; Select a storage mode; Choose an appropriate query type; Identify query performance issues; Use the Common Data Service; Use parameters

Profile the data
Identify data anomalies; Examine data structures; Interrogate column properties; Interrogate data statistics

Clean, transform, and load the data
Resolve inconsistencies, unexpected or null values, and data quality issues; Apply user-friendly value replacements; Identify and create appropriate keys for joins; Evaluate and transform column data types; Apply data shape transformations to table structures; Combine queries; Apply user-friendly naming conventions to columns and queries; Leverage Advanced Editor to modify Power Query M code; Configure data loading; Resolve data import errors

DAY TWO: MODEL THE DATA

Design a data model
Define the tables; Configure table and column properties; Define quick measures; Flatten out a parent-child hierarchy; Define role-playing dimensions; Define a relationship's cardinality and cross-filter direction; Design the data model to meet performance requirements; Resolve many-to-many relationships; Create a common date table; Define the appropriate level of data granularity

Develop a data model
Apply cross-filter direction and security filtering; Create calculated tables; Create hierarchies; Create calculated columns; Implement row-level security roles; Set up the Q&A feature

Create measures by using DAX
Use DAX to build complex measures; Use CALCULATE to manipulate filters; Implement Time Intelligence using DAX; Replace numeric columns with measures; Use basic statistical functions to enhance data; Create semi-additive measures

Optimize model performance
Remove unnecessary rows and columns; Identify poorly performing measures, relationships, and visuals; Improve cardinality levels by changing data types; Improve cardinality levels through summarization; Create and manage aggregations

DAY THREE: VISUALIZE THE DATA

Create reports
Add visualization items to reports; Choose an appropriate visualization type; Format and configure visualizations; Import a custom visual; Configure conditional formatting; Apply slicing and filtering; Add an R or Python visual; Configure the report page; Design and configure for accessibility; Configure automatic page refresh

Create dashboards
Set mobile view; Manage tiles on a dashboard; Configure data alerts; Use the Q&A feature; Add a dashboard theme; Pin a live report page to a dashboard; Configure data classification

Enrich reports for usability
Configure bookmarks; Create custom tooltips; Edit and configure interactions between visuals; Configure navigation for a report; Apply sorting; Configure Sync Slicers; Use the selection pane; Use drillthrough and cross filter; Drilldown into data using interactive visuals; Export report data; Design reports for mobile devices

DAY FOUR: ANALYZE THE DATA / DEPLOY AND MAINTAIN DELIVERABLES

Enhance reports to expose insights
Apply conditional formatting; Apply slicers and filters; Perform top N analysis; Explore statistical summary; Use the Q&A visual; Add a Quick Insights result to a report; Create reference lines by using Analytics pane; Use the Play Axis feature of a visualization

Perform advanced analysis
Identify outliers; Conduct Time Series analysis; Use groupings and binnings; Use the Key Influencers to explore dimensional variances; Use the decomposition tree visual to break down a measure; Apply AI Insights

Manage datasets
Configure a dataset scheduled refresh; Configure row-level security group membership; Providing access to datasets; Configure incremental refresh settings; Promote or certify a dataset

Create and manage workspaces
Create and configure a workspace; Recommend a development lifecycle strategy; Assign workspace roles; Configure and update a workspace app; Publish, import, or update assets in a workspace; Apply sensitivity labels to workspace content

Power BI DA-100 Exam Preparation

Private Corporate Training

Delegates	Tutor-Led	Self-Paced (2 yrs)	DOTS
Up to 10	£3,980	£1,900	£5,405
Up to 20	£7,840	£3,700	£10,615
Up to 30	£11,580	£5,250	£15,518
Up to 40	£15,120	£6,800	£20,220
Up to 50	£18,600	£8,000	£24,600
Up to 60	£21,840	£9,300	£28,815
Up to 70	£24,920	£10,500	£32,795
Up to 80	£28,000	£11,200	£36,400
Up to 90	£30,780	£12,150	£39,893
Up to 100	£33,600	£12,500	£42,975

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