



**Enterprise Computing Solutions - Education Services**

## **TRAINING OFFERING**

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# Discovering the Power of Excel 2010-2013 PowerPivot Data Analytic Expressions (DAX)

CODE:	LENGTH:	PRICE:
MS-55108	16 Hours (2 days)	\$1,190.00

## Description

This course is intended to expose you to PowerPivot Data Analytic Expressions (DAX) concepts such as the Data Model and evaluation context, DAX functions, operators, and constants. This release adds a module on the Data Model, an introduction to patterns, and has lab versions for both Excel 2010 and 2013.

## Objectives

This course is intended for Power Users, Business Intelligence Developers, and IT Professionals that will be involved with the development of Excel PowerPivot queries and tabular modeling.

## Prerequisites

Before attending this course, students must have: Experience with Excel and Microsoft SQL query writing is helpful.

## Programme

### Module 1: Course Overview

This module explains how the class will be structured and introduces course materials and additional administrative information.

#### Lessons

Introduction

Course Materials

Facilities

Prerequisites

What We'll Be Discussing

Lab : Course Overview

After completing this module, students will be able to:

Successfully log into their virtual machine.

Have a full understanding of what the course intends to cover.

### Module 2: Exploring Data Modeling

In this module, we will explore the differences between versions of Excel, examine how to activate the PowerPivot for Excel Add-in, explain the PowerPivot Data Model, and cover relationships.

#### Lessons

Differences Between Excel 2010 & 2013

PowerPivot for Excel Add-In

PowerPivot Data Model

VLOOKUP vs Relationships

Relationships

Lab : Exploring Data Modeling

After completing this module, students will be able to:

Understand the differences between Excel 2010 & 2013.  
Understand and activate the PowerPivot for Excel Add-in.  
Understand the PowerPivot Data Model.  
Understand VLOOKUP vs relationships.  
Understand relationships.

#### Module 3: Introduction to DAX

In this module we will introduce DAX and explain the syntax. We will then explore the different parts that make up a DAX formula, demonstrate how they work, and cover errors that you may encounter along the way. This module aims to get you started with the basics.

##### Lessons

Introduction to DAX  
Explaining Syntax  
Exploring Data Types  
Utilizing Operators  
Understanding Values  
Handling Errors

##### Lab : Introduction to DAX

After completing this module, students will be able to:

Explain and utilize DAX syntax.  
Explain and utilize DAX data types and operator overloading.  
Explain and utilize DAX operators.  
Explain and utilize DAX values.  
Explain error handling.

#### Module 4: Using DAX Functions

In this module we will cover DAX functions and their abilities. We will demonstrate their capabilities as well as show you how to utilize them.

##### Lessons

Mathematical Functions  
Statistical Functions  
Logical Functions  
Information Functions  
Text Functions  
Conversion Functions

##### Aggregation Functions

##### Relational Functions

##### Lab : Using DAX Functions

After completing this module, students will be able to:

Explain and utilize mathematical functions.  
Explain statistical functions.  
Explain and utilize logical functions.  
Explain information functions.  
Explain text functions.  
Explain and utilize conversion functions.  
Explain and utilize aggregation functions.  
Explain and utilize relational functions.

#### Module 5: Understanding Evaluation Contexts

This module aims to clarify more advanced DAX concepts, which require an understanding of evaluation contexts.

##### Lessons

##### The CALCULATE Function

##### Filter Functions

##### Single Table Evaluation Context

##### Multiple Table Evaluation Context

##### Lab : Understanding Evaluation Contexts

After completing this module, students will be able to:

Explain and utilize the CALCULATE function.  
Explain and utilize filter functions.  
Explain and utilize single table evaluation context.  
Explain and utilize multiple table evaluation context.  
Create and configure calculated fields.  
Create and configure calculated columns.

#### Module 6: Working with Dates

In this module we will explore how to work with dates and utilize Time Intelligence.

##### Lessons

Date Functions  
Working with Calendars  
Using Multiple Calendars  
Lab : Working with Dates

After completing this module, students will be able to:

Explain and utilize date functions.

Explain working with calendars.

Explain using multiple calendars.

Create and configure date calculations.

#### Module 7: Utilizing Advanced DAX Functionality

In this module we will cover many-to-many relationships and demonstrate their use along with exploring banding and DAX query capabilities.

Lessons

Many-to-Many Relationships

Banding

Evaluate

Simplifying Your Life with DAX Studio

Lab : Utilizing Advanced DAX Functionality

After completing this module, students will be able to:

Explain many-to-many relationships.

Explain banding.

Explain EVALUATE.

Explain and utilize advanced DAX capabilities.

Explain the benefits of DAX Studio.

#### Module 8: Examining Patterns

In this module, we have attempted to go into a more in-depth explanation of how the code works.

Lessons

Walkthrough a Basic Pattern

Lab : Examining Patterns

After completing this module, students will be able to:

Explain and utilize patterns.

Additional Reading

None

## Session Dates

On request. Please [Contact Us](#)

## Additional Information

[This training is also available as onsite training. Please contact us to find out more.](#)