# Microsoft SharePoint 2013 End to End Business Intelligence

**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

**Module 2: The Business Intelligence Stack**

In this module we will first look at the three different ways in which business intelligence can be viewed. Then, we're going to look at the services SQL 2012 provides us and how they apply to business intelligence. We will then move to SharePoint 2013 and look at the SharePoint services to examine their relevance and how we can use them in business intelligence to surface data. In this section we will also cover the new business intelligence features available within the SharePoint 2013 release. Finally, we will take a brief look at PowerPivot, examining the new features and their significance. PowerPivot is covered in more detail in a later module.

**Lessons**

Business Intelligence in Three Ways

SQL 2012 Business Intelligence

SharePoint 2010 Business Intelligence

PowerPivot

**Module 3: SQL Server Integration Services (SSIS) 2012**

In this module we will give an overview of ETL and discuss two approaches that should be considered prior to implementation. We will also go over the SQL Server Data Tools application and explain the concept of Packages, Tasks, and Containers with further instruction on how to use these tools and others. In the following list of topics you will see two topics that are part of SQL Server Integration Services ETL although not covered in this module. They are SQL Server Integration Services Data Profiler and Data cleansing which are covered later in the course.

**Lessons**

What's New?

Overview of Extract, Transform, and Load (ETL)

SSIS Tools

Change Data Capture

SQL Server Integration Services Scripting

Variables, Parameters, and Expressions

Package Deployment

**Module 4: SQL 2012 Business Intelligence Semantic Model (Multidimensional Mode)**

In this module we cover the basics of using multidimensional mode and the tools available. In data warehousing there are two commonly acknowledged approaches to building a decision support infrastructure, and you can implement both using the tools available in SQL Server Analysis Services 2012 multidimensional. We will go over these two approaches and we will also cover key concepts for using multidimensional mode.

**Lessons**

The Data Warehouse/Data Mart

The Tools

Key Concepts

Data Sources

Data Views

Cubes

Data Profiler

Proactive Cache

Deployment

Wizards

**Module 5: Microsoft Multidimensional Expressions**

There are some striking differences between SQL and MDX, and you should be aware of these differences at a conceptual level. The principal difference between SQL and MDX is the ability of MDX to reference multiple dimensions. Although it is possible to use SQL exclusively to query cubes, Analysis Services MDX provides commands that are designed specifically to retrieve data as multidimensional data structures with almost any number of dimensions. We will go over key concepts in multidimensional space and browse some basic MDX statements with specific coverage on navigating hierarchies and working with time.

**Lessons**

Concepts in Multidimensional Space

Basic MDX Statements

SQL Server Management Studio MDX Query Editor

Navigating Hierarchies

Working with Time

MDX Calculations

**Module 6: SQL 2012 Business Intelligence Semantic Model (Tabular Mode)**

If you are starting an Analysis Services 2012 project with no previous Multidimensional or OLAP experience, it is very likely that you will find tabular much easier to learn than multidimensional. Not only are the concepts much easier to understand, especially if you are used to working with relational databases, but the development process is also much more straightforward and there are far fewer features to learn. Building your first tabular model is much quicker and easier than building your first multidimensional model. It can also be argued that DAX is easier to learn than MDX, at least when it comes to writing basic calculations, but the truth is that both MDX and DAX can be equally confusing for anyone used to SQL. In this module we cover the basics of using tabular mode and the tools available.

**Lessons**

The Tabular Model

Data Analytic Expressions (DAX)

The Editor

Data Connections

Creating a Tabular Project

Relationships

Measures and Calculated Columns

Hierarchies

Perspectives

KPIs

Partitions

Processing

Deployment

**Module 7: SQL Server 2012 Reporting Services**

In this module we will cover the new and exciting features available in SQL 2012 Reporting Services. Report Lifecycles are discussed along with the tools available to create just about any type of report you can think of. Effective reporting is a key element in business intelligence and this module covers all the basics.

**Lessons**

Report Lifecycles

Installation Modes

Report Creation Tools

Data Sources

Datasets

Basic Reports

Graphics

Maps

Report Parts

## Module 8: Master Data Services

It is often said that Master Data Management (MDM) enables an enterprise to create and use a "single version of the truth". Master data management applies almost all industries and covers a broad category of corporate data. This module covers Master Data Management and explains what it is and why it is important. Along with covering system roles and the differences between master data and transactional data, we also go over key concepts in Master Data Services and the benefits of proper implementation.

**Lessons**

What is Master Data Management?

System Roles

Master Data vs. Transactional Data

Master Data Services ETL

Master Data Services Key Concepts

## Module 9: Data Mining/Predictive Analytics

Data Mining using SQL Server 2012 uses the concept of a SQL Service not an application. Because it is a service and not an application the software has the ability to scale unlike an application. In this module we explain the concept of data mining and how it can be a valuable tool in your business intelligence arsenal.

This module is a subset of the course on Data Mining which is in-development.

**Lessons**

Definitions for Our Purpose

Problems Addressed

Business Analytics

CRISP-DM

Key Concepts

Microsoft Data Mining Process

Data Mining Tasks

Microsoft Algorithms

Matching the Tasks to the Algorithm

Data Mining Add-in for Excel

PowerPivot for Excel

**Module 10: SharePoint 2013 Business Intelligence Center**

In this module, we will explore the new and improved 2013 SharePoint Central Administration site. We are going to cover specifically the new 2013 Business Intelligence Center template within SharePoint. We are also going to cover some things that generically apply to SharePoint that you can use within business intelligence. Permissions and Roles will be illuminated and the included Document Library and List apps will be explained.

**Lessons**

User Interface

Libraries and Lists (Apps)

Permissions

Quick Architecture

Central Administration

**Module 11: SharePoint 2013 Excel Services**

In this module, we will go over all the new 2013 Excel Services features, and we will explore the core components of Excel Services. We will cover Excel Web Access and it's capabilities along with any differences you may encounter in the browser as opposed to the desktop client. There is coverage of the Power View add-in for Excel, and then lastly we will explain the save and share process and have a look at best practices.

**Lessons**

New 2013 Excel Services Features

Core Components

Excel Web Access (EWA)

What Excel Web Access is Not

SharePoint Libraries to Store Workbooks

Power View Excel 2013 and SharePoint 2013

Excel Web Access Web Part

Excel Interactive View

Best Practices

**Module 12: SharePoint 2013 PerformancePoint 2013**

In this module, we will give you an overview of the new 2013 PerformancePoint Services features. Dashboard Designer is explored along with many of the objects and connections available within.

**Lessons**

What's New?

PerformancePoint Object Hierarchy

Dashboard Designer

Dashboards (Web Part Page)

Indicators

Data Sources

Key Performance Indicators as PerformancePoint Objects

Scorecards

Filters

Dashboards (Web Part Page) Revisited

Dashboard Designer Management

## Module 13: SharePoint 2013 Visio Services

Visio drawings can be extremely effective and in this module we cover the shared service that allows users to share and view them. We will go over all the new 2013 Visio Services features and also discuss data-connected drawings and how to configure them. There is also a section on viewing drawings within a browser.

**Lessons**

What's New in Visio Services 2013?

Visio Graphics Service

Visio Drawings in the Browser

Visio Graphics Web Access Part

Visio Drawings with Data Connections

## Module 14: PowerPivot

PowerPivot is not a feature of SharePoint business intelligence, however, an Excel workbook with PowerPivot can be saved to a SharePoint site and then used in a business intelligence scenario. This module is intended as an overview of the product only and covers all the new features available in the 2013 release of the add-in.

**Lessons**

PowerPivot and Excel 2013

PowerPivot and SharePoint

Enterprise Business Intelligence and PowerPivot

Enriching Data

## Module 15: SharePoint 2013 Business Connectivity Services

In this module we will explore the new features available within SharePoint 2013 Business Connectivity Services, how to configure the security, and clarify the terminology.

**Lessons**

What is Business Connectivity Services?

BCS Terminology

Business Connectivity Services and Apps From SharePoint 2013

Using SharePoint Designer with BCS

Surfacing the BCS Data

## Module 16: Dashboards

This module borrows from the three-day Microsoft course on Dashboards number 50596A. Monitoring, analyzing, and managing dashboards are discussed along with details on how to use them most effectively. This module does not cover Dashboard Designer as it is covered in more detail in the PerformancePoint Services module. Coverage of the Microsoft Report Builder 3.0 tool is brief as this course focuses on the SharePoint space.

**Lessons**

Dashboard Design

Capabilities Summarization

Three Types of Dashboards

Successful Dashboards

Tables or Graphs

Types of Graphs

Choosing a Chart Type

Key Performance Indicators

Pitfalls In Dashboard Design

Microsoft Report Builder 3.0

Plan Your Reports

Datasets

SharePoint Web Parts