

Course MS50429B:

# SharePoint 2010 Business Intelligence

**Course Length:** 5 Days

## Overview

This 5-day Instructor Led course How to use SharePoint as your platform for Business Intelligence. Journey through the SharePoint Business Intelligence Center, Excel Services, Reporting Services, Analysis Service, Performance Point and PowerPivot to implement your BI Strategies and enable your decision makers to see data in new and dynamic ways! This course will take you down a path of building a BI environment from scratch to full interactive dashboards using the Microsoft BI Stack.

## Target Student

Sr. Business Intelligence Architects and Consultants, Sr. Business Analysts, anyone responsible for implementing BI with SharePoint.

## Objectives

After completing this course, students will be able to:

Explore the new Business Intelligence Center, Analysis Services, Excel Services, Business Connectivity Services, Visio Services, Access Services, Power Pivot, Performance Point and Bing Maps.

## Prerequisites

Before attending this course, students must have:

Understanding of SharePoint 2010 User Interface, database reporting concepts and familiarity with Data Marts and Data Warehouses.

## Course Outline

### Module 1: Overview

A simple introduction module.

After completing this module, students will be able to:

Understand your course, classroom, classmates, facility and instructor

## **Module 2: Business Intelligence**

In this module we review what Business Intelligence (BI) is and what the typical BI goals are. We also explore how Microsoft BI tools are enabling more advanced Business Intelligence features to filter down/up to the decision makers and Information Workers in general.

### **Lessons**

Business Intelligence

#### **Lab: Business Intelligence Worksheet**

Answer Business Intelligence Questions

After completing this module, students will be able to:

Define Business Intelligence

Understand what P=R-C means to BI

Accept that empowering end users is a GOOD thing

Understand your BI will only be as good as your data, tools and processes

## **Module 3: Business Intelligence Center**

In this module we are going to explore the Business Intelligence Center site definition that comes with SharePoint 2010.

### **Lessons**

Business Intelligence Center

#### **Lab: Business Intelligence Center**

Explore SharePoint Business Intelligence Center

Explore Dashboard Designer

After completing this module, students will be able to:

Navigate the Business Intelligence Center Site Definition

Understand what a SharePoint Dashboard is

Understand what a KPI is and what data they can analyze

Understand what integration points are compatible with the Business Intelligence Center

## **Module 4: Data Mart and Data Warehouses**

In this module we explore what data is and some of the many forms that it takes. We then explore and define the terms Data Warehouse and Data Mart. This module is important in that as we move through the remainder of the course, we will need to have data to manipulate and work with to build our BI components.

### **Lessons**

Understanding Data and Data Formats

Building Data Marts and Data Warehouses

#### **Lab: Data and Data Formats**

Explore Data Formats

#### **Lab: Build a Data Warehouse**

Create a Simple Data Warehouse

#### **Lab: Extract and Load**

Explore the Extract stage

#### **Lab: Transform and Load**

Explore Transform and Load stages

Realize the importance of primary/unique keys

#### **Lab: Granularity**

Create Data Warehouse Granularity Levels

#### **Lab: Build a Data Mart**

Create a Data Mart

#### **Lab: SQL Server to SharePoint Lists**

Populate a SharePoint List with SQL Server data

After completing this module, students will be able to:

Differentiate between multiple data formats

Understand differences between data warehouse and data marts

Be able to describe what happens in an Extract, Transform and Load (ETL) process

## **Module 5: Business Connectivity Services**

In this module we are going to take a look at the new Business Connectivity Services.

### **Lessons**

Business Connectivity Services

#### **Lab: BCS Basics**

Explore External Content Types

Create a new External Content Type

Create an External List

**Lab: BCS with Data Warehouse**

Creating an Large External List using ECTs

Using Filters and External lists

Creating and Configuring Entity Profile Pages

**Lab: Office and BCS for BI**

Explore Office and BCS Integration

After completing this module, students will be able to:

Understand how BCS works

How to build new BCS applications

How to Upgrade your older BDC applications

**Module 6: Analysis Services**

In this module we will explore the feature of SQL Server called Analysis Services (SSAS). When regular SQL queries can't handle your data, MDX queries in SSAS can!

**Lessons**

Analysis Services

**Lab: Analysis Services**

Create Dimension and Fact tables with SSIS

**Lab: Building an Analysis Services Database**

Create an Analysis Services Database

Create a Cube

Create Dimensions

Create Fact Tables

Create a KPI

After completing this module, students will be able to:

Describe OLAP terms

Understand how to navigate Analysis Services

How to build a simple cube

How to write simple MDX queries

How to use data mining models

## **Module 7: Filter Web Parts**

In this module we will explore Filter Web Parts and the important role they play in building Business Intelligence portals.

### **Lessons**

Filter Web Parts

#### **Lab: Filter Web Parts**

Use each of the Filter Web Parts

#### **Lab: User Profiles and Filters**

Integrate User Profiles with Filters and Reports

After completing this module, students will be able to:

Describe what Filter Web Parts are

Work with Filter Web Parts

Understand how to integrate Filter Web Parts into other BI technologies

## **Module 8: Excel Services**

In this module we will explore and work with the various features of SharePoint's Excel Services.

### **Lessons**

Excel Services

#### **Lab: Create an Excel Report**

Create An Excel Report

#### **Lab: Excel Services**

Learn to use Excel Services

Create/Publish to Excel Services

Configure Excel Services

Shared Data Connections

#### **Lab: MDX**

Explore Excel 2010 MDX features

Create a Slicer

Create an MDX Set

#### **Lab: Sparklines**

Use Excel 2010 Sparklines

**Lab: Filters and Excel Services**

Explore Filter Web Parts and Excel Services

**Lab: REST and Web Services**

Explore REST features of Excel Services

Explore the Excel Services Web Service

After completing this module, students will be able to:

Setup and configure Excel Services

Use the Excel Services Web Parts

Use Excel to modify MDX queries

Use Excel to create Sparklines

Use Excel Services REST-ful APIs

**Module 9: PowerPivot**

In this module we explore the new PowerPivot tools of SQL Server 2008 R2 and Excel 2010.

Lessons

PowerPivot For SharePoint

PowerPivot For Excel

**Lab: Install Power Pivot**

Install PowerPivot for Excel

Install PowerPivot for SharePoint 2010

Configure PowerPivot for SharePoint

**Lab: Use PowerPivot**

Explore PowerPivot Functions

Use Basic PowerPivot

Use PowerPivot with Large DataSets

Create PowerPivot Linked Tables

Publish to SharePoint

Automating Data Refresh

Analyzing Usage Data

After completing this module, students will be able to:

Create PowerPivot enabled spreadsheets

Utilize common PowerPivot functions and tools

## **Module 10: Reporting Services**

In this module we will explore Reporting Services, its integration with SharePoint and how to build Reporting Services reports.

### **Lessons**

Reporting Services

Reports

### **Lab: Install Reporting Services**

Configure Reporting Services

Create a Reporting Services Report

Configure Reporting Services Web Part

### **Lab: Building Reports with Reporting Services**

Create Advanced Reporting Services report

Filter Web Parts and Reports

### **Lab: Create Advanced Reporting Services Report Filter Web Parts and Reports**

Create Report Part Gallery

Create a Report Library

Create Report Parts

Create a Report using Report Parts

Automated Report Delivery

### **Lab: Reporting Services and PowerPivot**

Setup Reporting Services RSS Feed

Create and Use Data Feed Library

Utilize Reporting Services data in PowerPivot

Utilize PowerPivot data in Reporting Services

After completing this module, students will be able to:

Understand and describe the integration between reporting services and SharePoint

Build Reporting Services reports

Use the Reporting Services web part

Create Report and Report Part Libraries

Integrate Reporting Services and PowerPivot

## **Module 11: Performance Point**

In this module we will explore Performance Point and how it supercharges your BI Dashboards and Key Performance Indicators.

### **Lessons**

Performance Point

### **Lab: Performance Point**

Explore Performance Service Application

Explore the Dashboard Designer

Create A Scorecard

Create A PP KPI

Explore Time Intelligence

Create Performance Point Reports

Create Filters

Create A Dashboard

After completing this module, students will be able to:

Describe features of Performance Point

Create Performance Point Scorecards and KPIs

Use Time Intelligence features in your BI solutions

## **Module 12: Visio and Access Services**

In this module we will explore Visio and Access Services and how to integrate it into your Report process.

### **Lessons**

Visio Services

Access Services

### **Lab: Visio Services**

Use Visio Services

Publish a Visio to SharePoint

Tie report process to Visio

### **Lab: Access Services**

Explore Access Services

Publish Access Database To SharePoint

After completing this module, students will be able to:



Create and deploy interactive Visio diagrams to SharePoint

Create and deploy Access databases to SharePoint

### **Module 13: GeoSpatial Data with Charts and Maps**

In this module we will explore GeoSpatial data and how to use the new .NET Charts and Mapping features of SharePoint 2010.

#### **Lessons**

Charts and Maps

GeoSpatial Data

#### **Lab: GeoSpatial Data with SQL Server**

Populate a SQL Server Database using Shape2SQL

Utilize the new Spatial Data Types in SQL Server

Create a Reporting Services Report using Geospatial Data

Publish Geospatial Data to SharePoint 2010

#### **Lab: Bing Maps**

Utilize Bing Maps API

Create a Simple Map With Content Editor Web Part

Create an Advanced Map with Data Views

Explore Filters, Data Views and Bing Maps integration

Integrate Geospatial Customer data into SharePoint Sites

#### **Lab: .NET Charts**

Utilize .NET Charts

#### **Lab: Google Maps**

Utilize Google Maps API

Create a Simple Map With Content Editor Web Part

Create an Advanced Map with Data Views

Explore Filters, Data Views and Google Maps integration

Integrate Geospatial Customer data into SharePoint Sites

After completing this module, students will be able to:

Understand how .NET Charts are used in SharePoint 2010

How to build geospatial maps using BI data