

COURSE SYLLABUS

COURSE TITLE:	55043AC Microsoft End to End Business Intelligence Boot Camp
FORMAT:	Instructor-led
CERTIFICATION EXAMS:	None



This course syllabus should be used to determine whether the course is appropriate for the students, based on their current skills and technical training needs. Course content, prices, and availability are subject to change without notice.

ELEMENTS OF THIS SYLLABUS ARE SUBJECT TO CHANGE.

ABOUT THE COURSE

This five-day instructor-led course is a complete high-level tour of the Microsoft Business Intelligence stack. It introduces students to the SQL 2012 Business Intelligence and SharePoint 2010 Business Intelligence services including PerformancePoint Service, Excel Services, Business Connectivity Services, Visio Services and the Business Intelligence Center focusing on their interdependency.

Each of the modules is stand-alone allowing for customization of the course for those audiences that may not have an interest in a certain service.

Each concept is demonstrated with a video before the exercise on that concept, so first you will have the short lecture then see the concept demonstrated then do it yourself. Remember if you can't do it you didn't learn it. Each of the videos, and there are approximately 13 hours of them, is intended as a take-away from the class for each student.

AUDIENCE

This course is intended for Project Managers, Business Intelligence Developers, SQL Server Developers and IT Professionals that will be involved with the design, development and maintenance of SharePoint 2010 Business Intelligence solutions. The course introduces each of the services and minimizes or eliminates any coding.

AT COURSE COMPLETION

After completing this course, students will be able to:

- ▶ Successfully Navigate SQL Server Data Tools.
- ▶ Successfully Navigate SQL Server Management Studio.
- ▶ Run the Import Export Wizard.
- ▶ Create a Project.
- ▶ Add and Configure Connections to the Control Flow.
- ▶ Add and Configure Execute SQL Tasks.
- ▶ Connect and Configure Precedence Constraints.
- ▶ Add and Configure Data Flow Tasks.
- ▶ Use the Destination Assistant.
- ▶ Copy a Package and Reuse Project Connection Managers.
- ▶ Add and Configure a Data Conversion Transformation.
- ▶ Add and Configure a Conditional Split Transformation.
- ▶ Add and Configure a Multicast Transformation.
- ▶ Add and Configure an Aggregate Transformation.
- ▶ Add and Configure a Derived Column Transformation.
- ▶ Add and Configure a Sort Transformation.



- ▶ Add and Configure a Lookup Transformation.
- ▶ Successfully Deploy a Project.
- ▶ Create a Sample or Test Database.
- ▶ Successfully Navigate and Use Key Objects.
- ▶ Create a Server-Side Time Dimension.
- ▶ Create a Data Source.
- ▶ Create a Data View.
- ▶ Successfully Navigate a Cube.
- ▶ Successfully Navigate and Configure Partitions.
- ▶ Use the Aggregation Design Wizard.
- ▶ Create and Configure a Data Profiling Task.
- ▶ Configure Proactive Cache.
- ▶ Deploy and Process a Project.
- ▶ Build a Cube.
- ▶ Understand the Functionality of MDX.
- ▶ Write MDX.
- ▶ Understand How to Use MDX to Navigate Hierarchies.
- ▶ Write MDX Navigating Hierarchies.
- ▶ Understand Working with Time in MDX.
- ▶ Write MDX Working with Time.
- ▶ Creating a Tabular Project.
- ▶ Import Data Using the Table Import Wizard.
- ▶ Manually Add a Relationship.
- ▶ Create Measures.
- ▶ Create Calculated Columns.
- ▶ Create Hierarchies.
- ▶ Create Perspectives.
- ▶ Create KPIs.
- ▶ Process Data.
- ▶ Deploy a Solution.
- ▶ Connect to a Tabular Model Using Excel.
- ▶ Locate, Access and Use Report Manager.
- ▶ Use Report Designer.
- ▶ Create and Configure Data Sources.
- ▶ Create and Configure Datasets.
- ▶ Create and Configure a Basic Report.
- ▶ Create and Configure Graphics.
- ▶ Create and Configure Maps
- ▶ Create and Configure Report Parts.
- ▶ Create and Configure a Model.
- ▶ Create and Configure Entities.
- ▶ Create and Configure Members.
- ▶ Create and Configure Attributes.
- ▶ Create a Business Rule.
- ▶ Deploy a Model.
- ▶ Load Data.
- ▶ Create a Subscribing View.
- ▶ Use the Data Mining Add-in for Excel.
- ▶ Distinguish between algorithms.
- ▶ Browse the data within the cube using SQL Server Management Studio.
- ▶ Browse data using Visual Studio 2010.
- ▶ Connect to a tabular source, import tables, and explore the data.
- ▶ Explore the options and settings available within Central Administration.
- ▶ Create a new web application and business intelligence site while exploring the features of both.
- ▶ Create a SharePoint library to hold Excel workbooks and explore trusted file locations.
- ▶ Create an Excel workbook with a parameter and save it to a SharePoint document library.



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- ▶ Add Web Parts to a webpage.
- ▶ Explore the Dashboard Designer interface and know how to create and configure a data source.
- ▶ Create and configure a standard KPI and a scorecard.
- ▶ Create and configure a leaf KPI and a scorecard.
- ▶ Create two blank KPI's and then roll them into an objective KPI.
- ▶ Create and configure an analytic chart and an analytic grid, add them to a dashboard, deploy them to SharePoint, and explore the options available.
- ▶ Create and configure a filter, and tie the filter into both the analytic chart and analytic grid created earlier.
- ▶ Create and configure a cascading filter and then tie it into a new analytic chart and grid.
- ▶ Create a Time Intelligence data connection, a Time Intelligence filter, and create a report using both.
- ▶ Create four copies of the Objective Scorecard, configure settings in each of the four copies, and deploy them to SharePoint in a dashboard.
- ▶ Create a new leaf KPI and use that KPI in two new scorecards, one with a filter configured, and one without.
- ▶ Create a new dashboard with two pages and review editing options.
- ▶ Create a drawing, upload the document to the Student BI Site site documents library, and view the drawing in a browser.
- ▶ Create a data connected drawing and upload the document to the Student BI Site documents library.
- ▶ Create an objective scorecard and matching strategy map, place them in a dashboard, and then upload the dashboard to the Student BI Site.
- ▶ Use PowerPivot within Excel to import a table from SQL Server.
- ▶ View the relationships existing within the tables you just imported from SQL Server and then import an additional table and configure a relationship between it and the existing.
- ▶ Hide columns they don't want reflected in the resulting PivotTable.
- ▶ Create a PivotTable within an existing worksheet.
- ▶ Assign administrators and permissions on the BDC Metadata Store.
- ▶ Explore the different content types available in SharePoint and learn how to locate them and their corresponding settings.
- ▶ Create a document library, configure it to accept specific content types, and then learn how to delete the document library.
- ▶ Create and configure a new external content type.
- ▶ Create an external list associated with the new external content type you created in the last exercise.
- ▶ Create a new external content type and a new host URL, and then create an external list and profile page.
- ▶ Add a custom action to an external list.
- ▶ Navigate the Report Builder 3.0 interface.
- ▶ Create an embedded data source connecting into a database.
- ▶ Create an embedded data source connecting into an OLAP database.
- ▶ Create a shared data source using the Report Manager.
- ▶ Create a shared dataset using the shared connection they created in the previous exercise.
- ▶ Create a new dashboard and explore three different ways to connect the Web Parts.

PREREQUISITES

Before attending this course, students must have:

- ▶ An understanding of the benefits of business intelligence.

ADDITIONAL READING

To help you prepare for this class, review the following resources:



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 1: COURSE OVERVIEW

- ▶ None

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: THE BUSINESS INTELLIGENCE STACK

We have split this module into sections. First, we are going to look at the three different ways in which business intelligence can be viewed. Then, we're going to look at the services the SQL 2012 provides us and how they apply to business intelligence. We will then move to SharePoint 2010 and look at the SharePoint services to examine their relevance and how we can use them in business intelligence to surface data. Finally, we will look at PowerPivot.

Lessons

- ▶ Business Intelligence in Three Ways
- ▶ SQL 2012 Business Intelligence
- ▶ SharePoint 2010 Business Intelligence
- ▶ PowerPivot

Lab 1: THE BUSINESS INTELLIGENCE STACK

- ▶ SQL 2012 Multidimensional Model Basics
- ▶ SQL 2012 Tabular Model Basics

After completing this module, students will be able to:

- ▶ Browse the data within the cube using SQL Server Management Studio.
- ▶ Browse data using Visual Studio 2010.
- ▶ Connect to a tabular source, import tables, and explore the data.
- ▶ View finalized data in SharePoint

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



Lab 1: SQL SERVER INTEGRATION SERVICES (SSIS) 2012

- ▶ Explore the SQL Server Data Tools
- ▶ Explore SQL Server Management Studio and Back Up a Database
- ▶ Run the Import Export Wizard
- ▶ Create a Project for the Exercises
- ▶ Add Connections to the Control Flow
- ▶ Add Execute SQL Tasks and Connect Precedence Constraints
- ▶ Add Data Flow and Use the Destination Assistant
- ▶ Copy a Package and Reuse Project Connection Managers
- ▶ Data Conversion
- ▶ Conditional Split
- ▶ Multicast
- ▶ Aggregate
- ▶ Derived Column and Sort
- ▶ Lookup
- ▶ Project Deployment

After completing this module, students will be able to:

- ▶ Successfully Navigate SQL Server Data Tools.
- ▶ Successfully Navigate SQL Server Management Studio.
- ▶ Run the Import Export Wizard.
- ▶ Create a Project.
- ▶ Add and Configure Connections to the Control Flow.
- ▶ Add and Configure Execute SQL Tasks.
- ▶ Connect and Configure Precedence Constraints.
- ▶ Add and Configure Data Flow Tasks.
- ▶ Use the Destination Assistant.
- ▶ Copy a Package and Reuse Project Connection Managers.
- ▶ Add and Configure a Data Conversion Transformation.
- ▶ Add and Configure a Conditional Split Transformation.
- ▶ Add and Configure a Multicast Transformation.
- ▶ Add and Configure an Aggregate Transformation.
- ▶ Add and Configure a Derived Column Transformation.
- ▶ Add and Configure a Sort Transformation.
- ▶ Add and Configure a Lookup Transformation.
- ▶ Successfully Deploy a Project.

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



Lab 1: SQL 2012 BUSINESS INTELLIGENCE SEMANTIC MODEL (MULTIDIMENSIONAL MODE)

- ▶ Create a Sample or Test Database
- ▶ Explore the Key Objects
- ▶ Creating a Server-Side Time Dimension
- ▶ Create a Data Source and Data View
- ▶ Explore the Cube
- ▶ Partitions
- ▶ Aggregations
- ▶ Data Profiler
- ▶ Proactive Cache
- ▶ Deploy and Process
- ▶ Build a Cube

After completing this module, students will be able to:

- ▶ Create a Sample or Test Database.
- ▶ Successfully Navigate and Use Key Objects.
- ▶ Create a Server Side Time Dimension.
- ▶ Create a Data Source.
- ▶ Create a Data View.
- ▶ Successfully Navigate a Cube.
- ▶ Successfully Navigate and Configure Partitions.
- ▶ Use the Aggregation Design Wizard.
- ▶ Create and Configure a Data Profiling Task.
- ▶ Configure Proactive Cache.
- ▶ Deploy and Process a Project.
- ▶ Build a Cube.

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

Lab 1: MICROSOFT MULTIDIMENSIONAL EXPRESSIONS (OPTIONAL)

- ▶ Explore MDX
- ▶ Write MDX (Optional)
- ▶ Explore MDX – Immediate Relatives
- ▶ Write MDX – Immediate Relatives (Optional)
- ▶ Working with Time
- ▶ Writing MDX - Working with Time (Optional)

After completing this module, students will be able to:

- ▶ Understand the Functionality of MDX.
- ▶ Write MDX.
- ▶ Understand How to Use MDX to Navigate Hierarchies.
- ▶ Write MDX Navigating Hierarchies.



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- ▶ Understand Working with Time in MDX.
- ▶ Write MDX Working with Time.

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

Lab 1: SQL 2012 BUSINESS INTELLIGENCE SEMANTIC MODEL (TABULAR MODE)

- ▶ Creating a Project and Importing Data
- ▶ Manually Add a Relationship
- ▶ Create Measures and Calculated Columns
- ▶ Create Hierarchies
- ▶ Create a Perspective
- ▶ Create a KPI
- ▶ Process Data and Deploy
- ▶ Connect to a Tabular Model

After completing this module, students will be able to:

- ▶ Creating a Tabular Project.
- ▶ Import Data Using the Table Import Wizard.
- ▶ Manually Add a Relationship.
- ▶ Create Measures.
- ▶ Create Calculated Columns.
- ▶ Create Hierarchies.
- ▶ Create Perspectives.
- ▶ Create KPIs.
- ▶ Process Data.
- ▶ Deploy a Solution.
- ▶ Connect to a Tabular Model Using Excel.



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

Lab 1: SQL SERVER 2012 REPORTING SERVICES

- ▶ Using Report Manager
- ▶ Using Report Designer
- ▶ Data Sources and Datasets
- ▶ Basic Reports
- ▶ Graphics
- ▶ Basic Maps
- ▶ Basic Maps with Color
- ▶ Report Parts

After completing this module, students will be able to:

- ▶ Locate, Access and Use Report Manager.
- ▶ Use Report Designer.
- ▶ Create and Configure Data Sources.
- ▶ Create and Configure Datasets.
- ▶ Create and Configure a Basic Report.
- ▶ Create and Configure Graphics.
- ▶ Create and Configure Maps
- ▶ Create and Configure 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

Lab 1: MASTER DATA SERVICES

- ▶ Create a Model
- ▶ Create Entities
- ▶ Create Members
- ▶ Create Attributes
- ▶ Create a Business Rule
- ▶ Deploy Model



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- ▶ Load Data
- ▶ Create a Subscribing View

After completing this module, students will be able to:

- ▶ Create and Configure a Model.
- ▶ Create and Configure Entities.
- ▶ Create and Configure Members.
- ▶ Create and Configure Attributes.
- ▶ Create a Business Rule.
- ▶ Deploy a Model.
- ▶ Load Data.
- ▶ Create a Subscribing View.

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

Lab 1: DATA MINING/PREDICTIVE ANALYTICS

- ▶ Using the Data Mining Add-in for Excel

After completing this module, students will be able to:

- ▶ Use the Data Mining Add-in for Excel.

MODULE 10: SHAREPOINT 2010 BUSINESS INTELLIGENCE CENTER

In this module, we are going to cover specifically the 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. Also covered are some concepts such as content types, which are handy to have a working knowledge of for anyone that works within SharePoint.

Lessons

- ▶ SharePoint Central Administration
- ▶ The Business Intelligence Center
- ▶ Permissions and Roles
- ▶ Document Libraries and Lists Included

Lab 1: SHAREPOINT 2010 BUSINESS INTELLIGENCE CENTER

- ▶ SharePoint Central Administration
- ▶ SharePoint Business Intelligence Center (Optional)

After completing this module, students will be able to:

- ▶ Explore the options and settings available within Central Administration.
- ▶ Create a new web application and business intelligence site while exploring the features of both.



MODULE 11: SHAREPOINT 2010 EXCEL SERVICES

In this module, we will explore the core components of Excel Services. We will cover Excel Web Access and its capabilities along with any differences you may encounter in the browser as opposed to the desktop client. Lastly we will explain the save and share process and have a look at best practices.

Lessons

- ▶ Core Components
- ▶ Excel Web Access (EWA)
- ▶ What Excel Web Access is Not
- ▶ Differences in the Browser vs. Desktop
- ▶ SharePoint Libraries to Store Workbooks
- ▶ The Save and Share Process
- ▶ Excel Web Part
- ▶ Best Practices

Lab 1: SHAREPOINT 2010 EXCEL SERVICES

- ▶ Creating a Library to Hold Excel Workbooks
- ▶ Save and Share an Excel Workbook to a SharePoint Document Library
- ▶ Add an Excel Web Part to a Webpage

After completing this module, students will be able to:

- ▶ Create a SharePoint library to hold Excel workbooks and explore trusted file locations.
- ▶ Create an Excel workbook with a parameter and save it to a SharePoint document library.
- ▶ Add Web Parts to a webpage.

MODULE 12: SHAREPOINT 2010 PERFORMANCEPOINT 2010

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

Lessons

- ▶ Overview of PerformancePoint Services
- ▶ Dashboard Designer
- ▶ Data Sources
- ▶ Indicators
- ▶ KPIs
- ▶ Visual Reports
- ▶ Filters
- ▶ Scorecards
- ▶ Dashboards

Lab 1: SHAREPOINT 2010 PERFORMANCEPOINT 2010

- ▶ PerformancePoint Services Dashboard Designer Introduction and Data Source Configuration
- ▶ Standard or Blank KPI Demonstration
- ▶ Leaf KPI Demonstration
- ▶ Objective KPI Demonstration
- ▶ Visual Reports
- ▶ PerformancePoint Filters
- ▶ PerformancePoint Cascading Filters
- ▶ Performance Point Time Intelligence Filters
- ▶ Scorecard Settings
- ▶ Scorecards Filtered Using the Wizard
- ▶ PerformancePoint Dashboards

After completing this module, students will be able to:

- ▶ Explore the Dashboard Designer interface and know how to create and configure a data source.
- ▶ Create and configure a standard KPI and a scorecard.
- ▶ Create and configure a leaf KPI and a scorecard.



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- ▶ Create two blank KPI's and then roll them into an objective KPI.
- ▶ Create and configure an analytic chart and an analytic grid, add them to a dashboard, deploy them to SharePoint, and explore the options available.
- ▶ Create and configure a filter, and tie the filter into both the analytic chart and analytic grid created earlier.
- ▶ Create and configure a cascading filter and then tie it into a new analytic chart and grid.
- ▶ Create a Time Intelligence data connection, a Time Intelligence filter, and create a report using both.
- ▶ Create four copies of the Objective Scorecard, configure settings in each of the four copies, and deploy them to SharePoint in a dashboard.
- ▶ Create a new leaf KPI and use that KPI in two new scorecards, one with a filter configured, and one without.
- ▶ Create a new dashboard with two pages and review editing options.

MODULE 13: SHAREPOINT 2010 VISIO SERVICES

Visio drawings can be very effective and in this module, we cover the shared service that allows users to share and view them. Also discussed in this module are data-connected drawings and how to configure them, along with a section on viewing drawings within a browser.

Lessons

- ▶ Visio Graphics Service
- ▶ Visio Drawings in the Browser
- ▶ Visio Graphics Web Access Part
- ▶ Visio Drawings with Data Connections

Lab 1: SHAREPOINT 2010 VISIO SERVICES

- ▶ Visio Drawing in the Browser
- ▶ Visio Services Data Connected Drawing
- ▶ PerformancePoint Dashboard Strategy Maps

After completing this module, students will be able to:

- ▶ Create a drawing, upload the document to the Student BI Site site documents library, and view the drawing in a browser.
- ▶ Create a data connected drawing and upload the document to the Student BI Site documents library.
- ▶ Create an objective scorecard and matching strategy map, place them in a dashboard, and then upload the dashboard to the Student BI Site.

MODULE 14: POWERPIVOT

PowerPivot is not a feature of SharePoint Business Intelligence but 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.

Lessons

- ▶ PowerPivot and Excel
- ▶ PowerPivot and SharePoint
- ▶ Enterprise Business Intelligence and PowerPivot
- ▶ Importing Data
- ▶ Enriching Data
- ▶ SharePoint Sharing

Lab 1: POWERPIVOT

- ▶ Import Data from SQL
- ▶ Review and Edit the Imported Relationships
- ▶ Hide Unused Columns
- ▶ Create a PivotTable

After completing this module, students will be able to:

- ▶ Use PowerPivot within Excel to import a table from SQL Server.



- ▶ View the relationships existing within the tables you just imported from SQL Server and then import an additional table and configure a relationship between it and the existing.
- ▶ Hide columns they don't want reflected in the resulting PivotTable.
- ▶ Create a PivotTable within an existing worksheet.

MODULE 15: SHAREPOINT 2010 BUSINESS CONNECTIVITY SERVICES

In this module we will cover Business Connectivity Services, how to configure the security and explain the terminology.

Lessons

- ▶ What is Business Connectivity Services?
- ▶ BCS Terminology
- ▶ BCS Security
- ▶ Using SharePoint Designer with BCS
- ▶ Surfacing the BCS Data

Lab 1: SHAREPOINT 2010 BUSINESS CONNECTIVITY SERVICES

- ▶ Setting Permissions on the BDC Store
- ▶ Exploring Content Types in SharePoint
- ▶ Add a Document Library Tied to Content Types
- ▶ Creating an External Content Type
- ▶ Creating an External List
- ▶ Configuring the Business Connectivity Services for a Host URL & Setting up a Profile Page
- ▶ Add a Custom Action to a List

After completing this module, students will be able to:

- ▶ Assign administrators and permissions on the BDC Metadata Store.
- ▶ Explore the different content types available in SharePoint and learn how to locate them and their corresponding settings.
- ▶ Create a document library, configure it to accept specific content types, and then learn how to delete the document library.
- ▶ Create and configure a new external content type.
- ▶ Create an external list associated with the new external content type you created in the last exercise.
- ▶ Create a new external content type and a new host URL, and then create an external list and profile page.
- ▶ Add a custom action to an external list.

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.

In this module, we do not cover Dashboard Designer as it is covered in more detail in the module on PerformancePoint Services.

Our coverage of the excellent tool Microsoft Report Builder 3.0 is sparse as this course focuses on the SharePoint space.

Lessons

- ▶ 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 Designer



- ▶ SharePoint Web Parts

Lab 1: DASHBOARDS

- ▶ Explore the Report Builder 3.0 Interface (Optional)
- ▶ Create an Embedded Data Source into SQL 2012 Engine (Optional)
- ▶ Create an Embedded Data Source into SQL 2012 Analysis Services (Optional)
- ▶ Create a Shared Data Source Using the Report Manager (Optional)
- ▶ Create a Shared Dataset Using the Shared Data Source (Optional)
- ▶ Three Methods for Connecting Dashboard Web Parts

After completing this module, students will be able to:

- ▶ Navigate the Report Builder 3.0 interface.
- ▶ Create an embedded data source connecting into a database.
- ▶ Create an embedded data source connecting into an OLAP database.
- ▶ Create a shared data source using the Report Manager.
- ▶ Create a shared dataset using the shared connection they created in the previous exercise.
- ▶ Create a new dashboard and explore three different ways to connect the Web Parts.

