



# Designing Business Intelligence Solutions with Microsoft SQL Server 2012

Course ID#: 1401-722-12-W

35 Hrs

## Course Content

### Course Description:

This five-day instructor-led course teaches students how to design and implement a BI infrastructure. The course discusses design, installation, and maintenance of a BI platform.

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### Prerequisites:

Before attending this course, students must have:

- A basic understanding of dimensional modeling (star schema) for data warehouses.
- The ability to create Integration Services packages that include control flows and data flows.
- The ability to create a basic multidimensional cube with Analysis Services.
- The ability to create a basic tabular model with PowerPivot and Analysis Services.
- The ability to create Reporting Services reports with Report Designer.
- The ability to implement authentication and permissions in the SQL Server database engine, Analysis Services, and Reporting Services.
- Familiarity with SharePoint Server and Microsoft Office applications, particularly Excel.

Students who attend this training can meet the prerequisites by attending the following courses, or obtaining equivalent knowledge and skills:

- 10777A: Implementing a Data Warehouse with Microsoft SQL Server 2012
- 10778A: Implementing Data Models and Reports with Microsoft SQL Server 2012

### Audience:

This course is intended for BI professionals such as BI Architects or database professionals who need to design BI solutions. BI Architects are responsible for the overall design of the BI infrastructure, including how it relates to other data systems in use. In addition, their responsibilities include Online Analytical Processing (OLAP) cube design and integration with Microsoft SharePoint or line-of-business applications.

### Topics:

#### Planning a BI Solution

This module discusses how to plan the components of a BI solution.

#### Lessons

- Elements of a BI Solution
- The Microsoft BI Platform

- Planning a BI Project



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## Planning SQL Server Business Intelligence Infrastructure

This module explains how to plan an appropriate BI infrastructure for a given set of BI services.

### Lessons

- Considerations for BI Infrastructure
- Planning Data Warehouse Hardware

## Designing a Data Warehouse

This module explains how to design a data warehouse for a given set of user requirements.

### Lessons

- Data Warehouse Design Overview
- Designing Dimension Tables
- Designing Fact Tables
- Designing a Data Warehouse Physical Implementation

## Designing an ETL Solution

This module explains how to design an ETL solution for a data warehouse.

### Lessons

- ETL Overview
- Planning Data Extraction
- Planning Data Transformation
- Planning Data Loads

## Designing Analytical Data Models

This module explains how to design analytical data models for specific BI scenarios.

### Lessons

- Introduction to Analytical Data Models
- Designing an Analytical Data Model
- Designing Dimensions
- Enhancing Data Models

## Planning a BI Delivery Solution

This module explains how to choose an appropriate delivery solution for a given scenario.

### Lessons

- Considerations for Delivering BI
- Common Reporting Scenarios
- Choosing a Reporting Tool

## Designing a Reporting Services Solution

This module explains how to design a Reporting Services solution.

### Lessons

- Planning a Reporting Services Solution
- Designing Reports
- Planning Report Consistency

## Planning a SharePoint Server BI Solution

This module explains how to design a SharePoint BI solution.

### Lessons

- Introduction to SharePoint Server as a BI Platform
- Planning Security for a SharePoint Server BI Solution
- Planning Reporting Services Configuration
- Planning PowerPivot Configuration
- Planning for PerformancePoint Services

## Monitoring and Optimizing a BI Solution

This module explains how to monitor and optimize a BI solution.

### Lessons

- Overview of BI Monitoring
- Monitoring and Optimizing the Data Warehouse
- Monitoring and Optimizing Analysis Services
- Monitoring and Optimizing Reporting Services



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## Operating a BI Solution

This module explains how to plan management and maintenance operations for a BI solution.

### Lessons

- Overview of BI Operations
- ETL Operations
- Data Warehouse Operations
- Analysis Services Operations
- Reporting Services Operations