

## **Microsoft 2794 Designing a Business Intelligence Solution for the Enterprise Using Microsoft SQL Server 2005**

### **Course Length: 2 Days**

Note: You are viewing a Preliminary Course Syllabus. This course is not yet available. Because some parts of the course are currently in development, some elements of this syllabus are subject to change.

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Description: The purpose of this 2-day instructor-led course is to teach Business Intelligence (BI) professionals working in enterprise environments to design a BI solution architecture. Students will be taught the importance of keeping all components of the solution and stages of the lifecycle in mind. The first day focuses on foundational standards and practices for the enterprise. The second day focuses on a project-specific lifecycle for capturing requirements and deriving a solution architecture.

This is the first course in the Business Intelligence curriculum and will serve as the entry point for other courses in the curriculum.

### **Audience**

This course is intended for experienced BI and SQL Server DBA professionals. The target students for this course already have an understanding of how to use the SQL Server 2005 tools to design BI infrastructure and solutions, but need to develop their understanding of design principles and best practices when planning, implementing, and deploying a Business Intelligence architecture and solution.

### **At Course Completion**

- After completing this course, students will be able to:
- Capture the business and technical requirements for a Business Intelligence solution architecture.
- Describe the major stages and requirements of a Business Intelligence project lifecycle.
- Determine Business Intelligence development requirements and implement a Business Intelligence development project.
- Assess and design a Business Intelligence infrastructure.
- Describe and plan Business Intelligence operations and their management.

### **Prerequisites**

- Before attending this course, students must:
- Have observed all phases of the BI project lifecycle:
- Collecting requirements
- Defining database models
- Developing ETL
- Creating OLAP solutions
- Developing reports
- Supporting deployed solutions

- Have foundational conceptual understanding of data warehousing, data marts, and Business Intelligence. Students must be well versed on the subjects of data warehousing, data marts, and BI, and preferably have read at least one book by Ralph Kimball or Bill Inmon.
- Practical experience with OLAP, ETL, and Reporting on the Microsoft SQL Server Platform. For example, constructing cubes, developing packages, and writing reports.
- Conceptual understanding of the components of SQL Server 2005. For example, changes to the OLAP, ETL, and reporting technologies.
- Have foundational understanding of Microsoft Windows security. For example, how groups, delegation of credentials, and impersonation function in a security context.
- Have foundational understanding of Web-based architecture. For example, SSL, SOAP, and IIS—what they are and what their role is.
- Must understand the difference between replication and ETL.
- Already know how to use:
  - Microsoft Office Visio
  - Microsoft SQL Server Business Intelligence Development Studio
  - Microsoft SQL Server Management Studio
  - Performance Monitor
  - Report Builder and Report Manager
  - Microsoft Visual SourceSafe
  - Microsoft Office Project
  - Be familiar with SQL Server 2005 features, tools, and technologies.

## **Course Outline**

### Module 1: Introduction to Business Intelligence Architecture

In this module, students will learn about key design principles that should be considered when scoping a BI solution, and how to gather business and technical requirements that will ensure that the solution and architecture meets the needs of its users.

- Overview of Business Intelligence
- Overview of Business Intelligence Architecture
  - Lab 1: Identifying Business Intelligence Solution Requirements
  - Determining Business Requirements
- Designing a High Level Architecture

After completing this module, students will be able to:

- Describe the nature of a Business Intelligence solution.
- Identify the main components of a comprehensive Business Intelligence architecture.

### Module 2: Overview of the Business Intelligence Project Lifecycle

This module examines the core processes and requirements to achieve a successful Business Intelligence project.

- Planning a Business Intelligence Project
- Determining Business Intelligence Requirements
- Revising and Updating a Business Intelligence Project
  - Lab 2: Planning a Business Intelligence Project
    - Examining Solution Requirements
    - Preparing a high level project plan
    - Planning a Business Intelligence Project

After completing this module, students will be able to:

- Describe the major components of a Business Intelligence project lifecycle.
- Determine requirements for a Business Intelligence solution project.
- Revise and update a Business Intelligence project plan.

### Module 3: Introduction to Business Intelligence Development

This module describes how to plan and manage the development process for a Business Intelligence project. It discusses considerations for assembling the development team, managing the development process, testing, and deploying the solution.

- Overview of Business Intelligence Development
- Managing Business Intelligence Development
- Determining Data Management Process
  - Lab 3: Developing a Business Intelligence Solution
    - Identifying Team Requirements
    - Determining Development Standards

After completing this module, students will be able to:

- Identify requirements and resources for implementing and managing a Business Intelligence development project.
- Manage a Business Intelligence development project.
- Determine effective data management processes.

### Module 4: Designing Business Intelligence Infrastructure

This module describes how to identify infrastructure requirements for a Business Intelligence solution, and how to design an effective infrastructure to provide the required levels of scalability and availability.

- Determining Infrastructure Requirements
- Designing the Infrastructure
- Planning for Scalability and Availability
  - Lab 4: Supporting Business Intelligence Infrastructure growth
    - Determining Growth Requirements
    - Projecting Capacity and Throughput Requirements
    - Identifying Reporting Services Growth Requirements

After completing this module, students will be able to:

- Determine infrastructure requirements for a Business Intelligence solution.
- Design the infrastructure for a Business Intelligence solution.

- Plan for scalability and availability.

#### Module 5: Managing Business Intelligence Operations

This module explains how to manage and operate a Business Intelligence solution.

- Overview of Business Intelligence Operations
- Managing Maintenance and Operations Tasks
- Managing Data Archiving
- Managing Business Intelligence Operations for Business Continuity
  - Lab 5: Using Microsoft Operations Framework (MOF) to Manage Business Intelligence Operations
    - Planning the Operations Solution
    - Determining the Current State of Operations
    - Evaluating Operational Costs and Risks

After completing this module, students will be able to:

- Describe Business Intelligence operations.
- Identify and plan maintenance and operations tasks for a Business Intelligence solution.
- Plan and implement data archiving in a Business Intelligence solution.
- Describe business continuity and how it applies to Business Intelligence operations.