

## **ITMT 2074 Course Syllabus**

**1. Name of Course:** Design Business Intelligence Solutions for Microsoft SQL Server 2005

**2. Number of Clock Hours:** 16

### **3. Course Description:**

The purpose of 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 course focuses on foundational standards and practices for the enterprise and a project-specific lifecycle for capturing requirements and deriving a solution architecture. MOC 2794.

**Prerequisites:** ITNX 9024 Microsoft Certified Technology Specialists in Microsoft SQL Server 2005 Business Intelligence, or equivalent.

### **4. Course Objectives**

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.

### **5. Rationale:**

Upon completion of this course, students will have a better understanding of Microsoft SQL Server 2005, a power database system.

### **6. Required Materials:**

Microsoft Official Curriculum, MOC 2794, included.

### **7. Evaluation**

Those who participate in class discussions, complete course lab work, and miss no more than three class meetings will be awarded 1.6 continuing education units.

### **8. 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 about the components of the back end and front end of a BI solution, so that they can design and develop appropriate BI solutions for organizations.

Lessons

- Overview of Business Intelligence
- Overview of Business Intelligence Architecture

#### Lab : Identifying Business Intelligence Solution Requirements

- Examining a BI Solution
- Documenting the BI Architecture

After completing this module, students will be able to:

- Describe the purpose and 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.

##### Lessons

- Planning a Business Intelligence Project
- Determining Business Intelligence Requirements
- Revising and Updating a Business Intelligence Project

#### Lab : Planning a Business Intelligence Project

- Identifying Requirements`
- Estimating Task Durations

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.

##### Lessons

- Overview of Business Intelligence Development
- Managing Business Intelligence Development
- Determining Data Management Process

#### Lab : Developing a Business Intelligence Solution

- Identifying Team Requirements

- Determining Naming Standards

After completing this module, students will be able to:

- Determine Business Intelligence development requirements and implement 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.

Lessons

- Determining Infrastructure Requirements
- Planning for Scalability and Availability

Lab : Supporting Business Intelligence Infrastructure Growth

- Designing a BI Infrastructure
- Evaluating Software Requirements

After completing this module, students will be able to:

- Determine infrastructure requirements for a BI solution.
- Plan for scalability and availability.

#### Module 5: Managing Business Intelligence Operations

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

Lessons

- Overview of Business Intelligence Operations
- Managing Maintenance and Operations Tasks
- Managing Data Archiving
- Managing Business Intelligence Operations for Business Continuity

Lab : Using Microsoft Operations Framework (MOF) to Manage Business Intelligence Operations

- Planning the Operations Solution
- Evaluating Operational Costs and Risks

After completing this module, students will be able to:

- Manage BI operations.
- Identify and plan maintenance and operations tasks for a BI solution.
- Describe considerations for planning and implementing data archiving in a BI solution.

- Describe business continuity and how it applies to BI operations.

Before attending this course, students must:

- 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.
- Have conceptual understanding of the components of SQL Server 2005. For example, the online analytical processing (OLAP), extract, transport, and load (ETL), and reporting technologies.
- Have practical experience with OLAP, ETL, and Reporting on the SQL Server 2005 Platform. For example, constructing cubes, developing packages, and writing reports.
- 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.
- 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

## Overview

### About this Course

Elements of this syllabus are subject to change.

The purpose of this two-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 Profile

This course is intended for experienced BI and Microsoft SQL Server professionals. The target students for this course already have an understanding of how to use the SQL Server 2005 tools to implement 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:

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- 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.

#### Course Details

##### Course Outline Module 1: Introduction to Business Intelligence Architecture

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#### Lab : Supporting Business Intelligence Infrastructure Growth

- Designing a BI Infrastructure
- Evaluating Software Requirements

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### Module 5: Managing Business Intelligence Operations

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

## Lessons

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- Managing Maintenance and Operations Tasks
- Managing Data Archiving
- Managing Business Intelligence Operations for Business Continuity

## Lab : Using Microsoft Operations Framework (MOF) to Manage Business Intelligence Operations

- Planning the Operations Solution
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- Manage BI operations.
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