



This course syllabus should be used to determine whether the course is appropriate for the student, based on current skills and technical training needs.

Course content, prices, and availability are subject to change without notice.

## Course Syllabus

# Maintaining a Microsoft SQL Server 2005 Database

Course 2780B • Five days • Instructor-led

This course provides students with the knowledge and skills that are needed to maintain a Microsoft SQL Server 2005 database. The course focuses on teaching individuals how to use SQL Server 2005 product features and tools related to maintaining a database.

### Audience

This course is intended for IT professionals wanting to become skilled on SQL Server 2005 product features and technologies for maintaining a database.

### Microsoft Certified Professional Exams

This course will help the student prepare for the following Microsoft Certified Professional exam:

- Exam 70-431: TS: Microsoft SQL Server 2005 Implementation and Maintenance

### Prerequisites

Before attending this course, students must have:

- Basic knowledge of the Microsoft Windows operating system and its core functionality
- Working knowledge of Transact-SQL
- Working knowledge of relational databases
- Some experience with database design

In addition, it is recommended, but not required, that students have completed or have the knowledge and skills of:

- Course 2778: Writing Queries Using Microsoft SQL Server 2005 Transact-SQL
- Course 2779: Implementing a Microsoft SQL Server 2005 Database

## Module 1: Installing and Configuring SQL Server 2005

Lessons:

- Preparing to Install SQL Server
- Installing SQL Server
- Managing SQL Server 2005 Installation

Lab 1: Installing SQL Server 2005

- Performing an Installation
- Managing SQL Server

## Module 2: Managing Databases and Files

Lessons:

- Planning Databases
- Creating Databases
- Managing Databases

Lab2: Creating and Managing Databases

- Creating a Database
- Managing Filegroups
- Viewing Metadata

## Module 3: Disaster Recover

Lessons:

- Planning a Backup Strategy
- Backing Up User Databases
- Restoring User Databases
- Recovering Data from Database Snapshots
- System Database and Disaster Recovery

Lab 3: Implementing a Disaster Recovery Strategy

- Implementing a Backup Strategy
- Restoring Databases
- Rebuild the Master Database

## Module 4: Managing Security

Lessons:

- Overview of SQL Server Security
- Securing the Server Scope
- Securing the Database Scope
- Managing Keys and Certificates in SQL Server

#### Lab 4: Securing SQL Server

- Creating Logins
- Creating and Managing Users
- Using a Certificate to Encrypt Data

### **Module 5: Monitoring SQL Server**

#### Lessons:

- Viewing Current Activity
- Using System Monitor
- Using SQL Server Profiler
- Using DDL Triggers
- Using Event Notification

#### Lab 5: Monitoring SQL Server

- Monitoring SQL Server Performance
- Tracing SQL Server Activity
- Implementing DDL Trigger

### **Module 6: Transferring Data**

#### Lessons:

- Overview of Data Transfer
- Introduction to SQL Server Integration Services
- Using SQL Server Integration Services

#### Lab 6: Transferring Data with SQL Server Integration Services (SSIS)

- Create a SSIS Package
- Deploying an SSIS Package

### **Module 7: Automating Administrative Tasks**

#### Lessons:

- Automating Administrative Tasks in SQL Server 2005
- Configuring the SQL Server Agent
- Creating Jobs and Operators
- Creating Alerts
- Managing Multiple Servers
- Managing SQL Server Agent Security

#### Lab 7: Automating Database Administration

- Configuring the SQL Server Agent
- Creating Operators and Jobs
- Creating Alerts

### **Module 8: Maintaining High Availability**

#### Lessons:

- Introduction to High Availability
- Implementing Server Clustering
- Implementing Database Mirroring
- Implementing Log Shipping

#### Lab 8: Configuring Database Mirroring

- Setting the Recovery Model
- Backing Up and Restoring the Database

- Starting Database Mirroring
- Performing an Automatic and Manual Failover

### **Module 9: Introduction to Replication**

#### Lessons:

- Overview of Replication
- Replication Scenarios

#### Lab 9: Implementing Replication

- Creating a Publication
- Creating a Subscription