



<http://Homnick.com>

621 NW 53rd St ·  
Suite 120  
Boca Raton, Florida 33487, USA  
+1(561)988-0567

## 2780-Maintaining a Microsoft SQL Server 2005 Database

**Three days; Instructor-Led**

### Introduction

This three-day instructor-led course provides students with product knowledge and skills 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.

### At Course Completion

After completing this course, students will be able to:

- Install and configure SQL Server 2005
- Manage database files.
- Manage security.
- Perform administrative tasks.
- Backup databases.
- Restore databases.
- Monitor SQL Server.
- Troubleshoot SQL Server.
- Transfer data.
- Maintain high availability.

### 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:

- Course 2778, Writing Queries Using Microsoft SQL Server Transact-SQL.
- Course 2779, Implementing a Microsoft SQL Server Database.

## Course Outline

### Module 1: Installing and Configuring SQL Server 2005

This module explains how to plan for and install SQL Server 2005, how to manage a SQL Server 2005 installation, and how to use the SQL Server 2005 administrative tools.

#### Lessons

- Preparing to install SQL Server.
- Installing SQL Server.
- Managing a SQL Server 2005 Installation.

#### Lab 1: Installing SQL Server 2005

- Performing an Installation.
- Managing SQL Server.

After completing this module, students will be able to:

- Prepare to install SQL Server.
- Install SQL Server.
- Manage a SQL Server installation.

### Module 2: Managing Databases and Files

This module explains how to manage databases and files.

#### Lessons

- Planning databases.
- Creating databases.

- Managing databases.

### **Lab 2: Creating and Managing Databases**

- Creating a Database.
- Creating Schemas.
- Configuring a Database.

After completing this module, students will be able to:

- Plan databases.
- Create databases.
- Manage databases.

### **Module 3: Managing Security**

This module explains how to manage principals, securables, and permissions, and how to implement cryptography in a SQL Server database.

#### **Lessons**

- Overview of SQL Server Security.
- Securing the Server Scope.
- Securing the Database Scope.
- Implementing Cryptography in SQL Server.

### **Lab 3: Securing SQL Server**

- Creating Logins.
- Creating and Managing Users.
- Implementing Cryptography.

After completing this module, students will be able to:

- Describe the SQL Server security architecture.
- Implement security at the server scope.
- Implement security at the database and schema scopes.
- Use cryptographic functionality in SQL Server.

### **Module 4: Disaster Recovery**

This module explains how to plan and implement a backup and restore strategy.

#### **Lessons**

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

#### **Lab 4: Implementing a Disaster Recovery Strategy**

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

After completing this module, students will be able to:

- Backup user databases.
- Restore user databases.
- Recover data from database snapshots.
- Backup and restore system databases.

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

This module explains how to monitor SQL Server performance and activity.

##### **Lessons**

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

#### **Lab 5: Monitoring SQL Server**

- Monitoring SQL Server Performance.
- Monitoring SQL Server With SQL Server Profiler.
- Implementing DDL Trigger.
- Implementing Event Notifications.

After completing this module, students will be able to:

- View current activity in SQL Server.
- Monitor SQL Server performance with System Monitor.
- Monitor SQL Server events with SQL Server Profiler.

- Implement DDL Triggers.
- Implement Event Notifications.

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

This module explains how to transfer and transform data.

#### **Lessons**

- Overview of Data Transfer.
- Introduction to SQL Server Integration Services (SSIS).
- Using SQL Server Integration Services.

#### **Lab 6: Transferring Data with SQL Server Integration Services**

- Create an SSIS Package.
- Deploying An SSIS Package.

After completing this module, students will be able to:

- Describe the tools and technologies for transferring data.
- Describe the main features of SQL Server Integration Services.
- Transfer and transform data with SSIS.

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

This module explains how to use the SQL Server Agent to automate administrative tasks.

#### **Lessons**

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

After completing this module, students will be able to:

- Describe automation options in SQL Server.
- Configure the SQL Server Agent.
- Create jobs and operators.
- Create alerts.
- Manage multiple servers.
- Manage SQL Server Agent security.

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

This module explains how to implement high availability technologies with SQL Server 2005.

#### **Lessons**

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

#### **Lab 8: Configuring Database Mirroring**

- Set the Recovery Model
- Backup and Restore
- Start Database Mirroring
- Perform an automatic and manual failover

After completing this module, students will be able to:

- Describe high availability options for SQL Server.
- Implement Server Clustering.
- Implement Database Mirroring.
- Implement Log Shipping.

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

This module explains considerations for implementing replication.

#### **Lessons**

- Overview of Replication.

#### **Lab 9: Implementing Replication**

- Creating a Publication.
- Creating A Subscription.

After completing this module, students will be able to:

- Describe considerations for implementing replication