

About This Course

This section provides you with a brief description of the course, audience, required prerequisites, and course objectives.

Course Description

This five-day instructor-led course provides students with the knowledge and skills to maintain a Microsoft SQL Server 2014 database. The course focuses on teaching individuals how to use SQL Server 2014 product features and tools related to maintaining a database.

Audience

The primary audience for this course is individuals who administer and maintain SQL Server databases. These individuals perform database administration and maintenance as their primary area of responsibility, or work in environments where databases play a key role in their primary job.

The secondary audience for this course is individuals who develop applications that deliver content from SQL Server databases.

Student Prerequisites

This course requires that you meet the following prerequisites:

- 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.

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

- 20461D: Querying Microsoft SQL Server

Course Objectives

After completing this course, students will be able to:

- Plan and install SQL Server 2014.
- Configure SQL Server databases.
- Describe SQL Server recovery models.
- Backup databases.
- Restore databases.
- Import and export data.
- Authenticate and authorize users.
- Use server and database roles.
- Configure and assign permissions.
- Use encryption and auditing.
- Manage SQL Server Agent and jobs.
- Configure security for SQL Server Agent.
- Use PowerShell to manage SQL Server.
- Configure Database Mail, alerts and notifications.
- Maintain databases.
- Configure SQL Profiler and SQL Trace and use the Database Engine Tuning Advisor.
- Monitor data by using Dynamic Management Views.

Course Outline

This section provides an outline of the course:

Module 1: Introduction to SQL Server 2014 Database Administration

Module 2: Installing and Configuring SQL Server 2014

Module 3: Working with Databases and Storage

Module 4: Planning and Implementing a Backup Strategy

Module 5: Restoring SQL Server 2014 Databases

Module 6: Importing and Exporting Data

Module 7: Monitoring SQL Server 2014

Module 8: Tracing SQL Server Activity

Module 9: Managing SQL Server Security

Module 10: Auditing Data Access and Encrypting Data

Module 11: Performing Ongoing Database Maintenance

Module 12: Automating SQL Server 2014 Management

Module 13: Monitoring SQL Server 2014 by Using Alerts and Notifications

Appendix A: Troubleshooting Common Administrative Issues

Appendix B: Installation Considerations

Course Materials

The following materials are included with your kit:

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Course Handbook. A succinct classroom learning guide that provides all the critical technical information in a crisp, tightly-focused format, which is just right for an effective in-class learning experience.

- ***Lessons:*** Guide you through the learning objectives and provide the key points that are critical to the success of the in-class learning experience.
- ***Labs:*** Provide a real-world, hands-on platform for you to apply the knowledge and skills learned in the module.
- ***Module Reviews and Takeaways:*** Provide improved on-the-job reference material to boost knowledge and skills retention.
- ***Lab Answer Keys:*** Provide step-by-step lab solution guidance at your fingertips when it's needed.
- ***Lessons:*** Include detailed information for each topic, expanding on the content in the Course Handbook.
- ***Labs:*** Include complete lab exercise information and answer keys in digital form to use during lab time
- ***Resources:*** Include well-categorized additional resources that give you immediate access to the most up-to-date premium content on TechNet, MSDN, Microsoft Press
- ***Student Course Files:*** Include the Allfiles.exe, a self-extracting executable file that contains all the files required for the labs and demonstrations.
- ***Course evaluation.*** At the end of the course, you will have the opportunity to complete an online evaluation to provide feedback on the course, training facility, and instructor.

To provide additional comments or feedback on the course, send e-mail to support@mscourseware.com.

To inquire about the Microsoft Certification Program, send e-mail to mcphelp@microsoft.com.

Course Companion Content on the <http://www.microsoft.com/learning/en/us/companion-moc.aspx>

Site: searchable, easy-to-browse digital content with integrated premium online resources that supplement the Course Handbook.

- **Modules:** include companion content, such as questions and answers, detailed demo steps and additional reading links, for each lesson. Additionally, they include Lab Review questions and answers and Module Reviews and Takeaways sections, which contain the review questions and answers, best practices, common issues and troubleshooting tips with answers, and real-world issues and scenarios with answers.
- **Resources:** include well-categorized additional resources that give you immediate access to the most current premium content on TechNet, MSDN®, or Microsoft® Press®.

Additional Reading: Course Companion Content: searchable, easy-to-browse digital content with integrated premium online resources that supplement the Course Handbook.

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- **Course evaluation:** at the end of the course, you will have the opportunity to complete an online evaluation to provide feedback on the course, training facility, and instructor.
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Virtual Machine Environment

This section provides the information for setting up the classroom environment to support the business scenario of the course.

Virtual Machine Configuration

In this course, you will use Microsoft® Hyper-V™ to perform the labs.

Note: At the end of each lab, you must revert the virtual machines to a snapshot. You can find the instructions for this procedure at the end of each lab

The following table shows the role of each virtual machine that is used in this course:

Virtual machine	Role
20462C-MIA-DC	Domain Controller
20462C-MIA-SQL	SQL Server VM

Software Configuration

The following software is installed on each VM:

- SQL Server 2014 (on the SQL Server VM)

Course Files

There are files associated with the labs in this course. The lab files are located in the folder D:\Labfiles on the student computers.

Classroom Setup

Each classroom computer will have the same virtual machine configured in the same way.

Course Hardware Level

To ensure a satisfactory student experience, Microsoft Learning requires a minimum equipment configuration for trainer and student computers in all Microsoft Certified Partner for Learning Solutions (CPLS) classrooms in which Official Microsoft Learning Product courses are taught. This course requires hardware level 6.

