

Administering a SQL Database (55316) Training

Microsoft Authorized Training · Applied Technology Academy

Microsoft Official Course 55316 gives database professionals the knowledge and skills to administer a SQL Server database infrastructure. Across five days you cover security and permissions, encryption and auditing, backup and restore strategies, automation with SQL Server Agent, alerting, PowerShell administration, Extended Events, performance monitoring, troubleshooting, and importing and exporting data — for SQL Server and Azure SQL Database alike.

LEVEL	DURATION	COURSE CODE	DELIVERY
Intermediate	5 Days	55316	Instructor-led

Course Overview

- Microsoft Official Courseware 55316, delivered instructor-led over five days.
- Covers administration of both on-premises SQL Server and Azure SQL Database.
- Security, backup and recovery, automation, monitoring and troubleshooting in one course.

Course Outline

- **Module 1: SQL Server Security**
 - Authenticating connections to SQL Server; authorizing logins to connect to databases; authorization across servers; partially contained databases.
- **Module 2: Assigning Server and Database Roles**
 - Working with server roles; working with fixed database roles; user-defined database roles.
- **Module 3: Authorizing Users to Access Resources**
 - Authorizing user access to objects; authorizing users to execute code; configuring permissions at the schema level.
- **Module 4: Protecting Data with Encryption and Auditing**
 - Options for auditing data access in SQL Server; implementing SQL Server Audit; managing SQL Server Audit; protecting data with encryption.
- **Module 5: Recovery Models and Backup Strategies**
 - Understanding backup strategies; SQL Server transaction logs; planning backup strategies.
- **Module 6: Backing Up SQL Server Databases**
 - Backing up databases and transaction logs; managing database backups; advanced database options.
- **Module 7: Restoring SQL Server Databases**
 - Understanding the restore process; restoring databases; advanced restore scenarios; point-in-time recovery.

- **Module 8: Automating SQL Server Management**
 - Automating SQL Server management; working with SQL Server Agent; managing SQL Server Agent jobs; multi-server management.
- **Module 9: Configuring Security for SQL Server Agent**
 - Understanding SQL Server Agent security; configuring credentials; configuring proxy accounts.
- **Module 10: Monitoring SQL Server with Alerts and Notifications**
 - Monitoring SQL Server errors; configuring Database Mail; operators, alerts and notifications; alerts in Azure SQL Database.
- **Module 11: Introduction to Managing SQL Server by using PowerShell**
 - Getting started with Windows PowerShell; configure SQL Server using PowerShell; administer and maintain SQL Server with PowerShell; managing Azure SQL databases using PowerShell.
- **Module 12: Tracing Access to SQL Server with Extended Events**
 - Extended Events core concepts; working with Extended Events.
- **Module 13: Monitoring SQL Server**
 - Monitoring activity; capturing and managing performance data; analyzing collected performance data.
- **Module 14: Configuring the SQL Server Utility**
 - Configure SQL Server Utility for multi-instance monitoring.
- **Module 15: Troubleshooting SQL Server**
 - Applying a troubleshooting methodology; resolving service-related issues; resolving connectivity and login issues.
- **Module 16: Importing and Exporting Data**
 - Transferring data to and from SQL Server; importing and exporting table data; using bcp and BULK INSERT to import data; deploying data-tier applications.

Prerequisites

- Experience using applications on Windows Servers.
- Experience working with SQL Server or another relational database management system.

Who Should Attend

- Individuals who administer and maintain SQL Server databases as their primary responsibility.
- Individuals who develop applications that deliver content from SQL Server databases.

Ready to enroll? Call 800.674.3550 or email Info@AppliedTechAc.com — private team cohorts, GSA MAS purchasing, military credentialing funding, VA GI Bill and VR&E and student financing available.