



Microsoft® SQL Server® 2005: Additional Topics

Instructors: **Joshua Gins** has taught thousands of application developers to create business solutions with Visual Studio .NET, Visual Basic .NET, ASP.NET, Visual C# and SQL Server. He is a Microsoft Certified Solution Developer with more than 15 years of application development experience, primarily as a consultant for companies across the country.

Frank Tillinghast is a Microsoft Certified Solution Developer who has been consulting and developing applications for almost fifteen years. When he is not developing software or mentoring clients, Frank is teaching other developers. He has taught over 3,500 application developers to create business solutions with Visual Studio.NET, VB.NET, ASP.NET, C#, and SQL Server.

Target Audience/Prerequisites: This course assumes that students have a basic understanding of Windows operating systems, security, networking technologies, SQL Server, T-SQL, Visual Studio.NET, and XML.

Total Learning Time: 15-45 hours

Media run time is 15+ hours, total learning time could be up to 45 hours if the courseware, labs and exams are utilized. This course can also be used as quick reference material, with the ability to access just the information you need in a matter of minutes.

Course Description: Developing a database, getting the database to work with your applications, and getting it to production is just the beginning, but can often be where the story ends. This course examines other SQL Server 2005 essential application, support, and maintenance topics—features you can use for high-availability, stability, reliability, and scalability of databases, plus enhancements for processing large amounts of data, handling complex data structures, implementing asynchronous messaging, and working with XML.

Course Outline:

Disaster Recovery

- Planning a Backup Strategy
- Backing Up Databases
- Scheduling Your Backups
- Verifying Backup Media
- Restoring Databases
- Using Database Snapshots

Failover Clustering

- High Availability Overview
- SQL Server 2005 Failover Cluster
- Preparing a Server Cluster
- Creating a New Cluster
- Installing SQL Server 2005 Failover
- Adding Additional SQL Server Nodes

Database Mirroring

- Understanding Mirroring
- Setting Up Database Mirroring
- Monitoring Database Mirroring

Log Shipping

- Overview
- Configuring Log Shipping
- Monitoring Log Shipping Jobs
- Using Transact-SQL

Peer-to-Peer Replication

- Overview
- Configuring the Distributor
- Creating the Publisher
- Configuring Peer-to-Peer Subscribers
- Configuring Peer-to-Peer Topology

Monitoring & Troubleshooting

- Diagnosing and Resolving Database Server Errors
- Set Up Alerts Using SQL Server Agent
- Monitoring SQL Server Agent Job History
- Gathering Performance Data and Optimization using DMV

Implementing Service Brokers

- Understanding Service Brokers
- Designing Service Broker Applications
- Programming Service Broker Applications

Implementing SQL Server Partitions

- Overview of Table-based Partitioning
- Creating Partitioned Tables
- Querying Partitions
- Managing Partitions

Complex Querying

- Working with NULL Values
- Ranking Grouped Data
- Writing Correlated Subqueries
- Using Common Table Expressions

Advanced Techniques

- Complex Data and Structures
- Writing More Efficient Queries
- Working with Complex Queries
- Maintaining Query Files

Working with XML

- The XML Data Type
- XML Schema Collections
- Querying XML
- Best Practices

Number of Modules	Media Run Time	Total Learning Time	Printable PDF Courseware*	Hands-on Labs	Sample Code	Pre/Post Exams	Supports Microsoft Exam Number
12 Modules	15+ hours	15-45 hours	600+ Pages	Yes	Yes	Yes	70-431

* Professionally printed, bound courseware (student manuals) are available. Ask for details.