

# Course : SQL Server administration for other DBAs

Practical course - 3d - 21h00 - Ref. ASQ

Price : 2040 CHF E.T.



This training course will teach you how to install, configure and administer Microsoft's SQL Server DBMS. You'll discover the server architecture, learn how to configure it, optimize data storage and guarantee data integrity. You'll also learn how to automate routine administration tasks.

## Teaching objectives

At the end of the training, the participant will be able to:

- ✓ Install and configure the SQL Server database
- ✓ Organize and optimize the physical storage of objects on the database
- ✓ Automate routine administrative tasks
- ✓ Use multiple backup and restore modes for database data
- ✓ Repairing damaged bases
- ✓ Maintain indexes and statistics

## Intended audience

Experienced non-SQL Server database administrators, application administrators and consultants.

## Prerequisites

Connaissances de base de la manipulation des bases de données et du langage SQL. Connaissances de base de l'administration Windows Server.

## Practical details

### Hands-on work

Discussions, experience sharing, demonstrations, tutorials and case studies.

### Teaching methods

Active pedagogy based on examples, demonstrations, experience sharing, case studies and assessment of learning throughout the course.

## Course schedule

### PARTICIPANTS

Experienced non-SQL Server database administrators, application administrators and consultants.

### PREREQUISITES

Connaissances de base de la manipulation des bases de données et du langage SQL. Connaissances de base de l'administration Windows Server.

### TRAINER QUALIFICATIONS

The experts leading the training are specialists in the covered subjects. They have been approved by our instructional teams for both their professional knowledge and their teaching ability, for each course they teach. They have at least five to ten years of experience in their field and hold (or have held) decision-making positions in companies.

### ASSESSMENT TERMS

The trainer evaluates each participant's academic progress throughout the training using multiple choice, scenarios, hands-on work and more.

Participants also complete a placement test before and after the course to measure the skills they've developed.

## 1 Installation and configuration

- SQL Server architecture. Installation, migration.
- Service configuration tools.
- SQL Server Management Studio and SQLcmd.exe.
- Instances, schema bases.
- System objects and databases.
- The "Data Management Views".
- Administration policies. Set instance parameters.

### Hands-on work

Use dynamic consultation tools. Configuration using Policy Based Management (PBM).

## 2 Storage space management

- Storage engine and physical storage. Object allocation.
- Table and index partitioning.
- Calculated columns.
- Manage database growth. Database snapshots (snapchot).
- Transparent Data Encryption: encrypt storage.

### Hands-on work

Database creation. File management. Snapshot creation. Setting up TDE.

## 3 Automation of administrative tasks

- Job scheduling by SQL Server agent. Specific MSDB roles. Execution log, monitor.
- Alerts and notifications. Operator management.
- Send e-mails: configure settings.
- Multi-server work. Event redirection.
- DDL triggers. Events: performance, WMI, WQL.

### Hands-on work

Automate and plan jobs.

## 4 Backups and restores

- Types of backup. Recovery modes and their influence.
- Backup strategy. Security. Scheduling.
- Restoration and repair of damaged environments.
- The various restorations.
- System database backup.

### Hands-on work

Configure backups and restores.

### TEACHING AIDS AND TECHNICAL RESOURCES

- The main teaching aids and instructional methods used in the training are audiovisual aids, documentation and course material, hands-on application exercises and corrected exercises for practical training courses, case studies and coverage of real cases for training seminars.
- At the end of each course or seminar, ORSYS provides participants with a course evaluation questionnaire that is analysed by our instructional teams.
- A check-in sheet for each half-day of attendance is provided at the end of the training, along with a course completion certificate if the trainee attended the entire session.

### TERMS AND DEADLINES

Registration must be completed 24 hours before the start of the training.

### ACCESSIBILITY FOR PEOPLE WITH DISABILITIES

Do you need special accessibility accommodations? Contact Mrs. Fosse, Disability Manager, at psh-accueil@orsys.fr to review your request and its feasibility.

## 5 Ongoing maintenance

- Check physical integrity. Recover engine information (DBCC).
- Repair damaged bases.
- Index diagnostics in SQL Server.
- Query metrics and execution plan. Setting up indexes.
- Index and statistics maintenance. Maintenance plan tool.

### Hands-on work

Maintain indexes and statistics. Verify storage integrity.

## 6 Introduction to high availability

- The principle of "log shipping" and mirroring.
- AlwaysOn: availability groups, replicas, listeners.

## Dates and locations

### REMOTE CLASS

2026 : 20 May, 30 Sep.