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## Business Intelligence with SQL Server 2005 (M2791-2792-2793)

Duration: 5 Days Course Code: GK7005

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### Overview:

**\* Accelerated course \***

The purpose of this instructor-led course is to teach Business Intelligence (BI) Professionals working in enterprise environments to design and manage a multidimensional architecture that supports their BI solution. The course consists of three parts: Analysis services-SQL integration services-SQL creating reporting services.

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### Target Audience:

Students have to know how to use: Microsoft SQL Server Business Intelligence Development Studio Microsoft SQL Server Management Studio Performance Monitor Microsoft SQL Server Profile

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### Objectives:

- **Analysis Services**
    - Here students will be taught to design, create and manage cubes, dimensions, KPI, data mining models. Students will also learn how to use MDX, how to extend the functionality of a cube with MDXscripts and actions. We will also teach how to partition cubes, how to process cubes and dimensions and how to create an aggregation design for partitions. Performance optimization and maintenance of a multidimensional database is also part of the curriculum.
  - **SQL Server Integration Services**
    - Here students will be taught to design an ETL (Extract Transform and Load) solution that supports their BI Solution. Students will also learn how to create a dataflow task and work with sources, transformations and destinations. In addition the use of scripting to extend the functionality of SSIS will be taught. Finally optimizing a SSIS solution and deploying it is also taught.
  - **SQL Server Reporting Services**
    - Students will learn how to design a reporting services solution that supports their BI solution. Students will go through the entire process of authoring their reports, deploying and managing of their reports and finally rendering of the report. Students will be taught how to optimize the execution of reports and how to secure reports. Finally students will also learn how to use reports models to allow end users to do ad hoc reporting.
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### Prerequisites:

- Creating Transact-SQL queries
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## Content:

### Module 2: Designing Data Flow.

In this module, students will learn how to design data flows that extract, transform, and load data. They will also learn about factors to consider when working with slowly changing dimensions (SCDs) and when implementing custom SCD transformations.

- Understanding Data Flow
- Designing Data Flow Operations
- Handling Data Changes

### Module 3: Logging, Error Handling, and Reliability.

In this module, students will learn how to incorporate logging, error handling, and reliability into your SSIS package designs. The module covers standard logging, custom logging, and log reporting. The module also teaches students how to implement error handling and how to handle bad data. Finally, the module shows students how to implement a transaction strategy, use checkpoints, and handle restart

### Module 6: Designing and Implementing a Logical OLAP Solution Architecture.

This module describes considerations and guidelines for designing an OLAP solution, including a relational data warehouse and an Analysis Services cube.

- Planning an OLAP Solution
- Designing and Implementing Fact and Dimension Tables
- Designing and Implementing Cubes

### Module 7: Designing Physical Storage for a Multidimensional Solution.

In this module, students will learn how to design an effective physical storage solution for a multidimensional application.

- Designing Physical Storage
- Partitioning Relational Data
- Partitioning Multidimensional Data

### Module 8: Creating Calculations.

In this module, students will learn how to create Multidimensional Expression (MDX) calculations. The module describes how to create calculated members, named sets, and scoped assignments.

- Implementing Calculated Members
- Implementing Named Sets
- Implementing Scoped MDX Scripts

### Module 9: Extending Cube Functionality.

In this module, students will learn about the benefits of KPIs, actions, and stored procedures. They will also learn how to implement KPIs, actions, and

### Module 13: Implementing Data Mining.

In this module, students will learn what a data mining solution is and how to design and implement data mining functionality with SQL Server Analysis Services.

- Introduction to Data Mining
- Implementing a Data Mining Solution
- Using Data Mining in a BI Solution

### Module 14: Developing a Reporting Solution.

In this module, students will first identify how best to develop reports using the powerful Business Intelligence Development Studio Report Designer tool. This will include a review of best practice for report layout, and how this is affected by the various rendering formats available. Secondly, they will identify the considerations for effective development of a report model to enable more experienced users to create their own reports.

- Developing Reports
  - Developing Report Models
- ### Module 15: Integrating Reporting Services with Applications.

In this module, students will review the options for integrating Reporting Services reports into a custom application. They will look at using direct URL access, the report viewer controls provided by Microsoft Visual Studio 2005

### Module 17: Designing Security for a Reporting Solution.

In this module, students will learn how to secure a Reporting Services solution.

- Designing an Authentication Strategy
- Designing an Authorization Strategy
- Designing a Secure Communication Strategy

### Module 18: Optimizing Report Performance.

In this module, students will learn how to optimize a Reporting Services solution.

- Monitoring Report Execution
- Designing a Report Execution Strategy
- Scaling Reporting Services

## Further Information:

For More information, or to book your course, please call us on 0800/84.009

[info@globalknowledge.be](mailto:info@globalknowledge.be)

[www.globalknowledge.be](http://www.globalknowledge.be)