LONDON CAPITAL COMPUTER COLLEGE

Diploma in Windows Networking (200) – Windows SQL Server Database Administration

Prerequisites: Knowledge in Windows operating system.	**Corequisites:** A pass or higher in Certificate in Networking or equivalence.
Aim: SQL Server is a Microsoft product used to manage and store information. Technically, SQL Server is a "relational database management system" (RDMS). Broken apart, this term means two things. First, that data stored inside SQL Server will be housed in a "relational database", and second, that SQL Server is an entire "management system", not just a database. SQL itself stands for Structured Query Language. This is the language used to manage and administer the database server. This course provide candidates with the knowledge and skills required to install, configure, administer, and troubleshoot the Microsoft SQL Server client/server database management system of Microsoft SQL Server. This course provide candidates with the technical skills required to program a database solution with Microsoft SQL Server client/server database management system. This course will help prepare candidates for a number of IT positions, including database developer, database administrator, IT consultant, and IT manager. On completing this course, students will be able to: Describe SQL Server Integration Services and its tools; Create an Integration Services package; Implement control flow in an Integration Services package; Implement data flow in an Integration Services package; Implement logging in an Integration Services package; Debug and implement error handling in an Integration Services package; Implement checkpoints and transactions in an Integration Services package; Deploy an Integration Services package; Manage and secure an Integration Services package.	
Required Materials: Recommended Learning Resources.	**Supplementary Materials:** Lecture notes and tutor extra reading recommendations.
Special Requirements: The course requires a combination of lectures, demonstrations, discussions, and hands-on labs.	

Intended Learning Outcomes:	**Assessment Criteria:**
1. Describe the functions of Microsoft SQL Server is a relational database server	1.1 Explore SQL Server concepts 1.2 Analyse SQL Server editions 1.3 Outline SQL Server applications
2. Demonstrate the step-by-step procedure for installing a new instance of SQL Server using the SQL Server setup installation.	2.1 Discuss SQL Server requirements 2.2 Be able to create service accounts 2.3 Describe installation process 2.4 Outline post-installation checks
3. Describe SQL Server administrative tools that manage all users and objects in a database.	3.1 Describe SQL Server management studio 3.2 Describe SQL Server system databases
4. Demonstrate the steps on how to create a database in SQL Server using Enterprise Manager.	4.1 Describe data tables 4.2 Outline SQL Server data types 4.3 Define primary key 4.4 Be able to create default values 4.5 Describe check constraints 4.6 Describe unique constraints 4.7 Analyse relationships and foreign keys 4.8 Be able to create relationships 4.9 Describe data normalisation 4.10 Be able to create computed columns
5. Demonstrate the steps on how the Import/Export Wizard imports data into SQL Server database from another data source.	5.1 Explore SQL Server import and export wizard 5.2 Be able to import Excel files into SQL Server 5.3 Be able to import CSV files into SQL Server 5.4 Be able to import Access database into SQL Server
6. Demonstrate how to retrieve information	

from a database with the SQL SELECT statement.	6.1 Define transact-SQL statements 6.2 Analyse SELECT statement 6.3 Be able to create conditions in SQL 6.4 Outline SQL sort commands 6.5 Describe aggregate functions 6.6 Be able to find unique values 6.7 Identify how to join multiple tables 6.8 Describe types SQL subqueries
7. Demonstrate the syntax for inserting and updating SQL database.	7.1 Be able to write INSERT statements 7.2 Be able to write UPDATE statements 7.3 Be able to write DELETE statements 7.4 Describe the OUTPUT clause
8. Describe the describe SQL command shows a tables fields and their formats.	8.1 Define a function 8.2 Be able to use SQL configuration functions 8.3 Describe string functions 8.4 Outline data functions 8.5 Identify user defined functions
9. Describe how to create transactions in SQL Server stored procedures using the Transact-SQL. Demonstrate how explicit transactions are used within stored procedures.	9.1 Define stored procedures 9.2 Be able to create procedures 9.3 Describe database transactions 9.4 Be able to create transactions
10. Describe the approach for optimizing table indexes. Describes how to reorganize or rebuild a fragmented index in SQL Server	10.1 Describe data indexing 10.2 Be able to create indexes 10.3 Identify how to rebuild an index 10.4 Outline how to monitor database size and integrity
11. Describe the benefits of backing up SQL Server databases, basic backup and restore terms, and backup and restore strategies.	11.1 Be able to create backups 11.2 Contrast differential vs full backup 11.3 Be able to restore database
12. Describes the security features of the SQL Server Database Engine.	12.1 Describe data security breaches 12.2 Explore permissions 12.3 Identify how to add users to a database 12.4 Be able to create SQL Server logins 12.5 Outline authentication modes
13. Describe SQL Server Reporting Services and its components. Demonstrate how to create a Reporting Services report.	13.1 Describe SQL services 13.2 Identify how to connect to Report Manager 13.3 Be able to use Report Builder 13.4 Explore report formatting 13.5 Be able to add charts to a report 13.6 Describe report security issues
14. Describe SQL Server Integration Services (SSIS) SQL Server database tool.	14.1 Describe Business Intelligence Development Studio (BIDS) 14.2 Be able to operate and execute SSIS package 14.3 Describe how to import packages into SQL Server Management Studio 14.4 Discuss job scheduling with SQL Server Studio

Tel: 0044 7423211037
Email: info@londoncomputercollege.co.uk Website: www.londoncomputercollege.co.uk
Registered No: 3267009 (England)

Text Books	• SQL Server Administration in Action by Rod Colledge ISBN-10: 193398872X • SQL Server Administration: Real-World Skills for MCITP Certification and Beyond ISBN-10: 0470554207 • Microsoft SQL Server Implementation And Maintenance by Mike Hotek ISBN-10: 0735626057
Study Manuals 	BCE produced study packs
CD ROM 	Power-point slides
Software 	Windows SQL Server