LONDON CAPITAL COMPUTER COLLEGE

Diploma in Windows Networking (200) – Windows Server 2008 Network Infrastructure

Prerequisites: Knowledge in Windows operations system.	**Corequisites:** A pass or higher in Certificate in Networking or equivalence.
Aim: The Windows Server 2008 Network Infrastructure Configuration course is designed to meet the needs and skills of individuals who work with or plan to work with: Windows Deployment Services, Terminal Services, Web Services, and Media Services. The course will provide learners with an understanding of how to design a Windows Server 2008 Network Infrastructure that meets business and technical requirements for network services; preparing IT professionals for the role of Enterprise Administrator. Learners will learn how to design application infrastructure solutions based on Windows Server 2008 to meet varying business and technical requirements. Learners may already be, or have been, working as server administrators involved in planning and design decisions at a server level, and who wish to gain skills and knowledge that enable them to transition to Enterprise level design decisions. The application infrastructure components of the course will focus primarily on web-based applications, application and presentation virtualization options and Remote Desktop Services. Application architects who want to know more about how to integrate Windows Server 2008 technologies into enterprise applications will also benefit from this course.	
Required Materials: Recommended Learning Outcomes.	**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. Understand Windows Server 2008 network concepts	1.1 Be able to configure IPv4 and IPv6 address management 1.2 Identify the basic components of a network 1.3 Be able to troubleshoot TCP/IP
2. Understand Windows Server 2008 installation and how to navigate the interface	2.1 Be able to configure Windows Server 2008 network settings 2.2 Be able to manage storage disks in Windows Server 2008 2.3 Be able to use the commands with the server core 2.4 Be able to manage server roles and features 2.5 Identify Windows Server 2008 hardware requirements 2.6 Outline new Windows Server 2008 technologies
3. Understand DHCP networking concepts	3.1 Be able to configure DHCP server roles 3.2 Be able to manage and secure DHCP database 3.3 Analyse the components and processes of DHCP 3.4 Be able to administer DHCP on clients and servers 3.5 Be able to troubleshoot DHCP issues
4. Understand configuration and management of DNS server roles	4.1 Be able to configure DNS server 4.2 Be able to configure DNS zones 4.3 Be able to configure DNS records 4.4 Be able to configure DNS replication

	4.5	Be able to configure Name Resolution for client
	4.6	Describe new DNS features in Windows Server 2008
	4.7	Be able to troubleshoot DNS environment
	4.8	Be able to manage WINS
5. Understand Routing and Remote Access (RRAS) and Wireless Networking concepts	5.1	Be able to configure routing
	5.2	Be able to configure Remote Access
	5.3	Be able to configure Network Address Translation (NAT)
	5.4	Be able to troubleshoot Routing and Remote Access
	5.5	Be able to install and configure a Network Policy Server (NPS)
	5.6	Be able to configure RADIUS clients and servers
	5.7	Analyse NPS authentication methods
	5.8	Be able to monitor and troubleshoot NPS
6. Understand Windows Server 2008 file services	6.1	Be able to configure a file server
	6.2	Be able to configure and use Distributed File System
	6.3	Analyse Windows Server 2008 storage management
	6.4	Be able to configure disk quota management
	6.5	Be able to implement file screening and manage storage reports
	6.6	Describe encrypting file services
7. Understand Windows Server 2008 print services	7.1	Be able to configure and monitor print services
	7.2	Outline Windows Printer Model and hot it is implemented in Windows Server 2008
	7.3	Be able to troubleshoot print failure
8. Understand Windows Server Update Services (WSUS)	8.1	Be able to configure WSUS server settings
	8.2	Be able to use Windows Server 2008 Event Viewer
	8.3	Be able to use Network Monitor to gather network data
	8.4	Be able to use performance monitor to capture performance data
9. Understand how to secure data transmission and the authentication process	9.1	Illustrate how IPSec secures network traffic
	9.2	Be able to configure IPSec
	9.3	Be able to configure network authentication
	9.4	Be able to configure firewall settings
	9.5	Be able to use security templates to secure services
	9.6	Be able to monitor and troubleshoot IPSec activities
10. Understand the components of Network Access Protection (NAP)	10.1	Be able to configure NAP
	10.2	Analyse NAP architecture
	10.3	Identify how NAP works
	10.4	Be able to monitor and troubleshoot NAP

11. Understand Windows Server 2008 file services and Backup infrastructure	11.1 Be able to configure shadow copy services 11.2 Be able to configure backup and restore process 11.3 Be able to manage disk quotas 11.4 Identify the various types of hardware used for backup 11.5 Identify the differences between full, incremental and differential backup 11.6 Compare Server 2003 ad 2008 Backup progams 11.7 Be able to use volume shadows 11.8 Be able to backup and restore Active Directory database

Recommended Learning Resources: Windows Server 2008 Server Network Infrastructure

Text Books	• The Precision Guide to Windows Server 2008 Network Infrastructure Configuration by Kurt Dillard. ISBN-10: 1468120158 • Windows Server 2008 Network Infrastructure Configuration with Lab Manual Set. ISBN-10: 0470875011
Study Manuals 	BCE produced study packs
CD ROM 	Power-point slides
Software 	Windows Server