LONDON CAPITAL COMPUTER COLLEGE

Certificate in Networking (107) – Windows Client Networking (XP)

Prerequisites: Basic knowledge in the use of Microsoft Windows Applications.	**Corequisites:** A pass or higher in Diploma in Information Technology or equivalence
Aim: The Windows Client Networking Course will provide comprehensive, hands-on application, use and training on a Windows client computer operating system for both beginning- and intermediate-level students. Instruction will include: operating system installation and configuration; graphical user interface and command-line commands; hardware installation and configuration; file system management; user and group management; security configuration; network configuration and management; troubleshooting and disaster recovery. This course though not difficult, is technical, comprehensive and very hands-on. It does require a significant time investment by students both in and out of the classroom. The course provides students with the instruction necessary to support end users who run the Microsoft Windows operating system in a corporate, small business, or home environment. Key components include end-user and computer management, including installing and updating Windows, supporting local users and groups, managing hardware, configuring file and folder access, installing and configuring network printers, and troubleshooting network connectivity. Candidates will gain necessary knowledge to install, configure, and manage the Microsoft Windows operating system in standalone, small-network, and corporate-network environments. In addition, candidates will acquire techniques in installation methods and troubleshooting, network resource connection and sharing, management of security settings, hardware device installation and management, storage management, disaster recovery planning and management, and performance analysis.	
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 TCP/IP protocol configuration as well as network membership for the different Windows platforms that are in common use today.	1.1	Explore Windows networking operating system family
	1.2	Analyse features of Windows environment
	1.3	Explore Windows user interface features
	1.4	Discuss system requirements for client operating system
	1.5	Describe networking models
	1.6	Explore the architecture of Windows client operating system
2. Explore the differences between 32-bit and 64-bit versions of Windows	2.1	Describe Windows operating system installation methods
	2.2	Compare and contrast WINNT vs WINNT32
	2.3	Describe partitioning, licensing and activating Windows operating system
	2.4	Be able to install client operating system
	2.5	Explore the process of booting multiple operating systems
3. Describe the tools used to enable the configuration of the client system BIOS after installation.	3.1	Explore control panel applets
	3.2	Analyse Microsoft management console
	3.3	Describe Administrative tools
	3.4	Analyse PC cards
4. Windows client operating system	4.1	Compare and contrast basic vs dynamic

properties and file and storage systems		storage
	4.2	Discuss functions of system drives
	4.3	Analyse FAT, FAT32 and NTFS file system
	4.4	Describe folder-level properties
	4.5	Describe Windows permissions and file sharing management
5. Demonstrate how to configure Local Group Policy Objects, Roaming user profiles and how the client data follows users as they roam the environment.	5.1	Explore Windows client user accounts
	5.2	Describe different types of logon
	5.3	Analyse Windows client logon process
	5.4	Be able to create and manage local user accounts
	5.5	Explore Windows system groups
	5.6	Be able to create Windows user profiles
	5.7	Analyse group policies
6. Describe the various Client Access protocols security settings that can be configured for users	6.1	Describe Windows client security model
	6.2	Analyse key roles of logon authentication
	6.3	Explore access control mechanism
	6.4	Describe local computer policy
	6.5	Compare and contrast domain security concepts vs local computer security
	6.6	Explore auditing features
	6.7	Describe file encryption
7. Demonstrate each of the following networking protocols; TCP/IPv4/IPv6, DHCP Client, DNS Resolver and Telnet	7.1	Describe Windows client networking features
	7.2	Explore client networking protocols
	7.3	Be able to configure TCP/IP services
	7.4	Explore interprocess communication
8. Describe the technologies that enable users to accomplish work-related tasks while working remotely at any time.	8.1	Describe remote access components
	8.2	Explore the various remote access connection types
	8.3	Analyse remote access security
	8.4	Be able to implement internet connection sharing and firewall system
	8.5	Explore internet tools and utilities
	8.6	Be able to troubleshoot remote access problems
9. Describe the products that provides a variety of end-user applications and tools to manage faxing and printing from Personal Computers (PCs).	9.1	Explore client printing terminology
	9.2	Analyse the client print subsystem architecture
	9.3	Describe functions of printer driver software
	9.4	Explore network printing process
	9.5	Be able to install and manage printers
	9.6	Be able to configure and manage print server
	9.7	Be able to troubleshoot printing problems
	9.8	Explore Windows client faxing capabilities
10. Describe how performance tuning functions in the client/server realm, supports many operating systems, works across networks, and accepts different communication protocols, including the factors that affect performance.	10.1	Describe windows client performance and monitoring tools
	10.2	Be able to create a performance baseline
	10.3	Be able to analyse log activities
	10.4	Be able to detect and eliminate bottlenecks

11. Demonstrate how Administration Client for Application Support Facilities provides interface and increase administrator productivity and reduce the time required to implement changes.	11.1 Describe the Windows client system architecture 11.2 Describe Win16 applications 11.3 Describe Win32 applications 11.4 Describe DOS and virtual DOS application environment 11.5 Explore Windows client management facilities
12. Describe the functions of the registry and demonstrate how to edit the registry and the process of modifying settings for other programs to make changes in the Registry itself	12.1 Describe the structure and functions of Windows registry 12.2 Describe the purpose of the registry keys 12.3 Be able to restore and protect the Windows registry 12.4 Explore registry tools
13. Describe the activities during the boot process as the system tests the hardware, loads and runs the operating in both disk and diskless network clients.	13.1 Describe the Windows boot process 13.2 Explore and troubleshoot startup options 13.3 Analyse boot system configuration 13.4 Be able to edit BOOT.INI file 13.5 Explore multiple-boot systems
14. Demonstrate how to provide client transparent fault tolerant system for system applications.	14.1 Describe intelliMirror technology 14.2 Be able to use the Backup utility 14.3 Be able to perform preventive maintenance 14.4 Explore the options for repairing Windows client system files

Recommended Learning Resources:
Windows Client Networking (XP)

Text Books	• Client/Server Networking Protocols (Information Technology Report) by Jerry Cashin ISBN-10: 1566070236 • Client/Server Computing by Dawna Travis Dewire ISBN-10: 007016732X • Testing Client/Server Systems by Kelley C. Bourne ISBN-10: 0070066884
Study Manuals	BCE produced study packs
CD ROM	Power-point slides
Software	Windows XP Client Operating System