COURSE OUTLINE

Section 1:

Course Title: Windows Server Administration

Course Code: CNET-1110

Course Description: Hands-on projects help students develop the core skills required to work with Microsoft's Windows Servers. Server installation; management of user accounts and resources; server performance monitoring; and security are explored. The learning outcomes for this course map to portions of the Microsoft Certified IT Professional (MCITP) certification.

Grade Scheme: ☐ Pass/Fail ☒ Percentage   Minimum Pass Mark: 60%

Course Value: Outcome hours   OR   2 Credit(s)   45 (15 class + 30 lab) Hours

Pre-requisites: CMPS-1000 A+ Software
CNET-1010 Cisco CCNA I Network Fundamentals

Co-requisites: NONE

Section 2:

Learning Outcomes and Competencies

1. **Install Windows Server to meet business and technical requirements.**

    1.1 Choose most appropriate version of Windows Server for installation.

    1.2 Describe the various installation methods.

    1.3 Identify hardware requirements.

    1.4 Determine licensing costs for given Windows Server products.

    1.5 Install Windows Server.

2. **Configure data storage for efficient use.**

    2.1 Manage basic disks and dynamic disks.

    2.2 Create partitions and simple volumes.

    2.3 Compare and contrast the various RAID levels.

    2.4 Configure servers for RAID-1 and RAID-5.

    2.5 Troubleshoot storage problems.

3. Manage users, computers, and groups for appropriate network access.

    3.1 Manage local, roaming, and mandatory user profiles.

    3.2 Describe the Active Directory.

    3.3 Create user, group, and computer accounts in an Active Directory environment.

    3.4 Troubleshoot user, group, and computer accounts.

4. Manage access to resources to maintain data security.

    4.1 Configure access to shared folders.

    4.2 Configure file system permissions.

    4.3 Configure file and folder Auditing.

    4.4 Implement a Distributed File System.

    4.5 Troubleshoot access to files and shared folders.

5. Implement policies to secure Windows Server.

    5.1 Secure access to Windows Server using security policies.

    5.2 Manage security policies using templates.

    5.3 Configure Network Address Translation (NAT).

    5.4 Configure Network Access Protection.

    5.5 Configure the Windows firewall.

6. Configure printing to meet business requirements.

    6.1 Describe network and Internet printing.

    6.2 Describe XPS printing.

    6.3 Install print services.

    6.4 Install local and shared printers.

    6.5 Manage print queues.

7. Manage network services to maximize resource availability.

    7.1 Install DNS services.

    7.2 Configure DNS zones, resource records, replication, and roles.

    7.3 Troubleshoot DNS problems.

    7.4 Install and configure a DHCP server.

7.5 Troubleshoot DHCP problems.

7.6 Plan for IPv6.

7.7 Monitor server performance.

7.8 Create logs of system events.

8. **Manage a web server to provide information access.**

8.1 Install the IIS web server.

8.2 Configure and manage the IIS web server.

8.3 Configure web-site authentication.

8.4 Configure and test access to an intranet web-site.

8.5 Install and manage certificate services.

9. **Implement Disaster Recovery to minimize service downtime.**

9.1 Develop a data backup and recovery strategy.

9.2 Describe backup options.

9.3 Perform a server backup.

9.4 Restore backup data.

9.5 Schedule backup jobs.

9.6 Resolve boot problems.

9.7 Configure and use shadow copies.

10. **Provide secure remote access to servers.**

10.1 Configure user authentication for remote access.

10.2 Manage devices and physical connections required for remote access.

10.3 Implement and configure virtual private networks (VPNs).

10.4 Install and configure Terminal Services for remote administration.

10.5 Manage Terminal Services.

10.6 Deliver applications to thin clients using Terminal Services.

10.7 Troubleshoot Terminal Services.

Section 3:

Assessment Categories:

Theory Tests and Exams	30%
Practical Tests and Exams	30%
Labs and Assignments	30%
Professionalism	10%

Research Component? ☐ Yes ☒ No

Section 4:
(For administrative use only)

Is this course new? ☐ Yes ☒ No

Is this course replacing an existing course(s)? ☐ Yes ☒ No

If this course is replacing another, please record the name and code of the old course:

Course equivalents: NONE

Note: See Quality Procedure A01 for more details.

Catalog Year of Original Course Implementation: 2011

Catalog Year of Current Version Implementation: 2015

Revision level: 3   **Version:** 3   **Date:** June/2016   **Authorized by:** MLGJ

Accreditation and or Supporting Documents: National Technology Benchmarks: Canadian Council of Technicians & Technologists; Discipline: Information Technology; Level: Technologist

Additional Information: None

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Approved by: (Program Manager)

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Approved by: (Curriculum Consultant)

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