

Course Code: CSC 159

Course Title: MS Network Administrator

Department: Business/Computer Science and Technologies

Effective Date: Summer 2026

PCS Code: 1.2 - Occupational/Technical Instruction

CIP Code: 11.0901

Repeatability: 0

Credit Hours

Catalog Notation: 2-2-3

Credit Hour Distribution:

Lecture: 2

Lab: 2

Clinical: 0

Total: 3

General Course Information

Catalog Description

Planning, deploying, managing, and monitoring a multiple Microsoft Server Environment. Patch, policy, administrative delegation, backup configuration and deployment decisions. Planning a business environment for continuity and high availability.

General Course Objectives

Prepare student for Windows Server Administration, including administrative skills needed to design and manage the different areas of the Windows Server.

Minimum Placement Levels

English

None

Reading

None

Math

None

Prerequisites

Credit in CSC 153

Methods of Evaluation

4-5 tests, 4-6 quizzes, 3-5 projects, 3-5 homework assignments, and 8-10 labs.

Instructional Materials and Additional Supplies

MCSA Guide to Identity with Windows Server 2016, Exam 70-742, 1st Edition. Net cost: \$111.00 ISBN-13: 978-1-337-40089-3

Course Content

General Learning Outcomes (GLOs)

- Critical Thinking and Information Literacy: Students will demonstrate the ability to evaluate perspectives, evidence, and implications, and to locate, assess, and use information effectively.
- Technology: Students will demonstrate the ability to evaluate, select, and appropriately use current and emerging tools.

Course Segments and Student Learning Outcomes

Course Segment	Learning Outcomes	Lecture Hours	Lab Hours	Clinical Hours
Windows Network Administration Overview	1. List the various tasks of a Windows Network Administrator. 2. Describe general troubleshooting techniques. 3. Identify different network management tools used to reduce Windows Server Administration. 4. Describe Windows Active Directory concepts.	4	3	0
Managing Windows Hardware and Software	1. Plan operating system installation to ensure hardware and software compatibility. 2. Assess hardware and software needs using Windows tools. 3. Install and configure computer hardware and drivers. 4. Configure driver signing options. 5. Install and manage Windows Updates.	3	4	0
Administering Active Directory	1. Create and modify AD objects (OU's, users, computers, and groups.) 2. Identify and troubleshoot AD groups and scopes. 3. Administer AD object permissions. 4. Manage and troubleshoot AD replication.	4.5	6	0
Managing Group Policies	1. Create and manage Group Policy Objects to control user desktop settings, security, scripts, and folder redirection. 2. Manage and troubleshoot Group Policy inheritance. 3. Deploy and manage software using Group Policies.	4	4	0
Administering File and Print Resources	1. Create and manage shared folders using Windows Explorer and the MMC. 2. Manage shared folder permissions. 3. Integrate shared folder and NTFS permissions. 4. Create and modify Web folders. 5. Configure and manage DFS. 6. Create and modify shared printer resources. 7. Set up and manage published resources in AD. 8. Audit access to shared resources. 9. Manage data storage.	3	3	0
Administering Web Resources	1. Create and configure website virtual servers and virtual directories. 2. Configure website authentication. 3. Configure and maintain FTP virtual server. 4. Update and maintain security for an IIS server. 5. Troubleshoot web client browser connectivity.	3.5	3	0
Administering the Network Infrastructure	1. Explain basic concepts of TCP/IP. 2. Configure TCP/IP on Windows Servers and Workstations. 3. Troubleshoot TCP/IP and network connectivity using various utilities. 4. Administer DHCP on a Windows server. 5. Update and maintain security for an IIS server. 6. Troubleshoot web client browser connectivity.	3	3	0

Course Segment	Learning Outcomes	Lecture Hours	Lab Hours	Clinical Hours
Monitoring and Troubleshooting Windows Servers	1. Monitor Windows Servers health and performance. 2. Troubleshoot Windows startup procedures. 3. Use advanced startup options and other tools in operating system recovery.	2	1	0
Administering Remote Access	1. Configure remote access servers and clients. 2. Configure remote access authentication. 3. Configure remote access policy. 4. Configure Network Address Translation (NAT). 5. Configure Internet Connection Sharing (ICS). 6. Implement Terminal services for remote access.	3	3	0

Total Contact Hours

Lecture Hours	Lab Hours	Clinical Hours
30	30	0