

Course Information Form (CIF)

Course Code: CSC 153

Course Title: MS OS Server

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: 2-3-3

Credit Hour Distribution:

Lecture: 2

Lab: 3

Clinical: 0

Total: 3

General Course Information

Catalog Description

Configure, customize, and troubleshoot Microsoft Server installations including storage, compute functionality, managing images, disks, volumes, Data Deduplication, High Availability, Disaster Recovery, Storage Spaces Direct, Hyper-V, Containers, and Failover Clustering. Introduction to cloud installations of Microsoft Server.

General Course Objectives

Students will be able to implement, administer, and troubleshoot a Microsoft network operating system used in a widely dispersed computer network that includes multiple servers, multiple domains, and sophisticated server applications.

Minimum Placement Levels

English

None

Reading

None

Math

None

Prerequisites

Credit in CSC 133

Methods of Evaluation

14 lab simulations, 12 virtual machine labs, 12 quizzes, 4 exams, and a final assessment exam.

Instructional Materials and Additional Supplies

Hands-On Microsoft Windows Server 2019, This text will update based on, at a minimum, the oldest Server OS version that is fully supported by Microsoft. Microsoft Active Directory is only introduced in this course. ISBN: 9780357436158

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
Introduction to Microsoft Server	1. Describe the role of a server operating system including hardware, software, roles and features, core technologies, and new features. 2. Apply the roles of a server operating system including hardware, software, roles and features, core technologies, and new features.	2.5	3.75	0
Installing Windows Server	1. Describe the installation of Windows Server including the different editions, hardware requirements, planning the installation, Server Core, and Features on Demand. 2. Demonstrate the installation of Windows Server including the different editions, hardware requirements, planning the installation, Server Core, and Features on Demand.	2.5	3.75	0
Configuring and Managing Windows Server	1. Describe working with roles and features, managing servers remotely, installing images for deployment, and configuring services. 2. Demonstrate working with roles and features, managing servers remotely, installing images for deployment, and configuring services.	2.5	3.75	0
Configuring Storage and File Systems	1. Describe server storage, configuring local disks, working with virtual disks, file sharing, and securing files with permissions. 2. Demonstrate the configuration of server storage and local disks, working with virtual disks, file sharing, and securing files with permissions.	2.5	3.75	0
Configuring Advanced Storage Solutions	1. Describe storage spaces, configuring iSCSI, implementing Data Deduplication, and Storage Replica. 2. Demonstrate configuring iSCSI, implementing Data Deduplication, Storage Replica, and storage spaces.	2.5	3.75	0
Implementing Virtualization with Hyper-V Part 1	1. Describe installing Hyper-V, creating virtual machines, and managing virtual machines. 2. Demonstrate installing Hyper-V, creating virtual machines, and managing virtual machines.	2.5	3.75	0
Implementing Virtualization with Hyper-V Part 2	1. Describe working with virtual hard disks, virtual networks, advanced virtual networks, and nested virtualization. 2. Demonstrate working with virtual hard disks, virtual networks, advanced virtual networks, and nested virtualization.	2.5	3.75	0
Implementing High Availability: Server Clusters	1. Describe network load balancing and Failover Clusters. 2. Demonstrate network load balancing and Failover Clusters.	2.5	3.75	0
Implementing High Availability: Advanced Failover and Virtual Machines	1. Describe Advanced Failover Clusters, implementing Stretch Clusters, implementing high availability virtual machines, virtual machine movement, and Storage Spaces Direct. 2. Demonstrate Failover Clusters, implementing Stretch Clusters, implementing high availability virtual machines, virtual machine movement, and Storage Spaces Direct.	2.5	3.75	0

Course Segment	Learning Outcomes	Lecture Hours	Lab Hours	Clinical Hours
Maintaining Server Installations	1. Describe Windows Server Update Service, configuring WSUS, and implementing Windows Defender. 2. Demonstrate configuring WSUS, and implementing Windows Defender and Windows Server Update Service.	2.5	3.75	0
Server Monitoring and Backup	1. Describe Windows server monitoring, backup Windows server, Windows server recovery, and backup and recovery of specific roles. 2. Apply Windows server monitoring, backup Windows server, Windows server recovery, and backup and recovery of specific roles.	2.5	3.75	0
Additional Server Configurations and Windows Containers	1. Describe Windows Containers, deploying Containers, and managing Windows Containers and server installations in cloud environments. 2. Demonstrate installing Windows Containers, deploying Containers, and managing Windows Containers.	2.5	3.75	0

Total Contact Hours

Lecture Hours	Lab Hours	Clinical Hours
30	45	0