

SOUTHEAST COMMUNITY COLLEGE
CONSTRUCTION MANUFACTURING AND TECHNOLOGY DIVISION
Computer Information Technology Program
Revision Date: August 2024

I. CATALOG DESCRIPTION

Course Number: INFO1494
Course Title: Windows Server Administration
Prerequisite(s): INFO1448, MATH1020 or higher
Corequisite(s): ELEC2760
Catalog Description: This course introduces the skills needed for managing a Windows Server network including configuring, administering, and troubleshooting user accounts, groups, and network security. Students create, configure, and manage network services along with file and web services in an Active Directory environment.
Credit Hours: 3
Class Hours: 45
Lab Hours: 0
Total Contact Hours: 45

II. COURSE OBJECTIVES: *Course will:*

- A. Provide the knowledge and experience to install, configure, and manage Windows Server using a Graphical User Interface (GUI) and PowerShell.
- B. Demonstrate how to create and manage storage and file systems under Windows Server.
- C. Show how to implement and manage Microsoft's Hyper-V Virtualization.
- D. Discuss High Availability, Failover, and backup solutions to maintain system functionality.
- E. Explain the use of Nano Server and Windows Containers.

III. STUDENT LEARNING OUTCOMES AND GENERAL EDUCATION LEARNING OUTCOMES:

- A. Student Learning Outcomes: *Student will be able to:*
 - 1. Describe Windows Server core technologies and features.
 - 2. Define the Windows Server editions and requirements when planning an Installation.
 - 3. Demonstrate the ability to configure Server Roles and Features and use Windows Deployment Services (WDS).
 - 4. Manage and configure local, shared, and virtual storage.
 - 5. Create a virtual infrastructure using Hyper-V.
 - 6. Construct load-balanced networks, failover server clusters, and high availability solutions.
 - 7. Complete a Windows Server Update Services (WSUS) installation and configure its features.
 - 8. Perform Server monitoring and backup tasks.
 - 9. Use and manage Nano Server and manage Windows Containers.
- B. General Education Learning Outcomes (GELOs)
 - 1. GELO #3: Critical Thinking & Problem Solving
 - 2. Outcome 2: Synthesize information to arrive at reasoned solutions to problems.

IV. CONTENT/TOPICAL OUTLINE

- A. Introducing Windows Server

- B.** Installing Windows Server
- C.** Configuring and Managing Windows Server
- D.** Configuring Storage and File Systems
- E.** Configuring Advanced Storage Solutions
- F.** Implementing Virtualization with Hyper-V
- G.** Implementing High Availability
- H.** Maintaining Server Installations
- I.** Server Monitoring and Backup
- J.** Nano Server and Windows Containers

V. INSTRUCTIONAL MATERIALS

- A.** Required Text(s): Hands-On Microsoft Windows Server by Jason Eckert
(Refer to CID and/or instructor for current edition)
- B.** Other Resources: Windows Server Administration Supplemental Materials.

VI. METHODS OF PRESENTATION/INSTRUCTION

- A.** Methods of presentation typically include a combination of the following:
 - 1.** Technology enhanced lectures
 - 2.** Group discussions and demonstrations
 - 3.** Engaged learning activities

VII. METHODS OF EVALUATION

- A.** Methods of evaluation, although determined by the individual instructor, traditionally includes a combination of the following:
 - 1.** Attendance and/or participation activities
 - 2.** Homework assignments and research projects
 - 3.** Exams

VIII. SPECIFIC COURSE REQUIREMENTS

- A.** This course will not qualify as a prerequisite if the student receives a final grade below a C (70%).