

NOS 231 Windows Administration II

COURSE DESCRIPTION:

Prerequisites: NOS 230

Corequisites: None

This course is designed to equip IT professionals and students with the foundational cloud services knowledge offered by Microsoft Azure, as outlined in the AZ-900 certification, alongside advanced Windows Server administration skills. Through a combination of theoretical knowledge and practical projects, participants will gain a deeper understanding of cloud concepts, core Azure services, security, privacy, compliance, and trust, as well as pricing and support. Additionally, the course will delve into advanced Windows Server management, covering areas such as Active Directory, Hyper-V virtualization, and network services. This course is ideal for those seeking to certify in AZ-900 and enhance their capabilities in Windows Server environments.

Course Hours per Week: Class, 2, Lab, 2. Semester Hours Credit, 3.

LEARNING OUTCOMES:

Upon completing requirements for this course, the student will be able to:

1. Identify cloud computing services and deployment models, including Infrastructure-as-a-Service (IaaS), Platform-as-a-Service (PaaS), and Software-as-a-Service (SaaS).
2. Describe core Azure services, including Azure compute, storage, networking options, and Azure Active Directory.
3. Implement and manage Azure subscriptions and resources, ensuring effective cloud resource management.
4. Configure advanced Windows Server roles and features to optimize server performance and security.
5. Design and deploy network infrastructure services on Windows Server, such as DHCP, DNS, and IPAM.
6. Administer Active Directory and manage policies for a secure Windows Server environment.
7. Analyze Azure pricing, service level agreements (SLAs), and lifecycle, making informed decisions for cloud adoption.
8. Apply best practices for security, privacy, compliance, and trust in Azure and Windows Server environments.

OUTLINE OF INSTRUCTION:

- I. Introduction to Cloud Concepts and Core Azure Services
 - A. Cloud Computing Models and Services
 - B. Core Azure Services: Compute, Networking, Storage, and Database
 - C. Azure Resource Management and Governance
- II. Azure Security, Privacy, Compliance, and Trust
 - A. Azure Security Center and Key Vault
 - B. Identity Services with Azure Active Directory
 - C. Compliance and Privacy Features in Azure

III. Advanced Windows Server Administration

- A. Windows Server Virtualization with Hyper-V
- B. Advanced Network Services and Active Directory Deployment
- C. File and Storage Services, including DFS and Storage Spaces

IV. Pricing, SLAs, and Lifecycle in Azure

- A. Understanding Azure Pricing and Support Plans
- B. Managing Azure Subscriptions and Resources
- C. Azure Service Lifecycle and SLAs

V. Project and Certification Preparation

- A. Capstone Project: Implementing a Secure and Scalable Azure and Windows Server Solution
- B. AZ-900 Certification Exam Preparation and Review

REQUIRED TEXTBOOK AND MATERIAL:

The textbook and other instructional material will be determined by the instructor.