

# Windows Server Administration: Core Infrastructure for Enterprise IT

This Windows Server Admin training teaches you to configure, manage, and troubleshoot Windows Server 2025 in a real-world environment. You'll learn core enterprise IT skills, starting with the foundations, like what servers are and how they work, before diving into installation methods, networking basics, and Active Directory structure. In the process, you'll learn about domains, trees, forests, and FSMO roles. You'll also tackle using Group Policy to control what users and devices can do across your environment. Finally, you'll learn about file services, Hyper-V, storage, and entry-level PowerShell. Once you've completed this Windows Server Admin training, you'll be able to manage Windows Server 2025 at the professional level.

[CBT Nuggets course material](#) →

## WEEK 1

### Server Purpose and Function

- What is a Server? Part Two
- Server Functions
- Server Infrastructure Roles
- Validation

### Windows Server Hardware and Schema

- Server Hardware Loadout
- NT 4.0 Domain Disadvantages
- Active Directory Advantages
- Validation

### Windows Server Installation

- Server Requirements and Editions
- Installation Considerations
- Virtual Machine Setup
- Desktop and Core Installation
- Automated Installation
- Validation

### Post-Installation First Steps

- Naming Servers
- Naming Servers
- Renaming the Server
- Networking and Updates
- Validation

## **Users, Groups, and Resources**

User Account Overview

Create User Accounts

Protecting User Accounts

Understanding Groups

Problems with Local Users / Groups

Validation

## **Active Directory**

Benefits of Active Directory

Installing Active Directory!

Create AD User

Join Workstation to Domain and Log On a User

Validation

## **Active Directory Confirmation and Replication**

Stage the Lab Environment

Domain User Consistency

Locating Active Directory with DNS

Adding a Second Domain Controller

Validation

## **Server and AD Management Tools**

Server Manager

Active Directory Users and Computers & Delegation

Active Directory Sites and Services

Active Directory Domains and Trusts

Validation

## **Active Directory Custom Tools**

Custom MMC Console Workstation Setup

Custom MMC Console Snap-ins

Active Directory Administrative Center (ADAC) Overview

ADAC In Action!

Windows Admin Center

Control Panel in god Mode

Validation

## **Group Policy Objects**

Group Policy Overview

Configure a Group Policy Object

GPO Hierarchy and Settings

GPO Sites and Refresh Cycle

Validation

## **Sharing File Resources**

Create a File Share

Use WAC to Create Shares

Map Network Shares

Folder Redirection

Validation

## **Storage Management**

File Server Role

File Systems

File Systems

File Systems

Disk Management

Disk Management

Validation

## **Storage: From SOHO to the Enterprise**

SMB Today - Do We Still Use It?

SMB Over QUIC

Network Attached Storage (NAS)

Storage Area Networking (SAN)

iSCSI Network Storage

Validation

## **Principle of Least Privilege**

How Zero Trust Moved to the Forefront

The Principle of Zero Trust

Functions of Zero Trust

Validation

## **Boot Security and Server Roles and Rights**

Hardware Protection

TPM Benefits and Role in Authentication

Unified Extensible Firmware Interface (UEFI)

User Rights Assignment

Builtin Groups of Significance

Validation

## **Virtualization with Hyper-V**

Hyper-V Intro and Density

The Per-Server Workload Downside

The Hyper-V Upside

Managing a Hyper-V Host

Manage a Hyper-V Guest and Settings

Validation

## **Updating Windows Server 2025**

Update Types

Update Management

Update Deferrals

Windows Server Update Services (WSUS)

WSUS GPO Settings

Validation

## **Server Backup and Restore**

Importance of Backup

Backup Rotation

Backup Strategies

Backup and Restore Process

Validation

## **Monitor Performance: Real-Time Tools**

Introduction

Performance Monitoring with Task Manager

Resource Monitor

Third-Party Testing Tools

Validation

## **Performance Baseline and Events**

Establish a Baseline

Performance Monitor

Windows Admin Center Performance

Windows Admin Center Workspace

Event Viewer

Validation