

KOENIG SOLUTIONS • COURSE OUTLINE

Windows Server 2022 Administration

Learn to administer Windows Server 2022, from identity, storage and virtualization to high availability, security and migration.

5 Days

40 HOURS

12

MODULES

94

TOPICS

34

HANDS-ON ACTIVITIES

COURSE OVERVIEW

The Windows Server 2022 Administration course is a comprehensive program designed to equip learners with the knowledge and skills necessary to manage and maintain the latest Windows Server infrastructure. Covering a variety of topics, from basic administration to advanced features, this course is structured to provide a deep dive into the capabilities of Windows Server 2022. Starting with Module 1, students are introduced to the essentials of Windows Server Administration, setting the stage for more specialized topics. Modules 2 and 3 focus on Identity Services, which are crucial for managing and securing user identities within a network. Module 4 tackles File Servers and Storage Management, while Module 5 delves into Hyper-V virtualization and Containers, highlighting modern virtualization options. Module 6 explores High Availability configurations, ensuring business continuity. Module 7 addresses Disaster Recovery strategies, an essential part of maintaining operational resilience. In Module 8, students learn about the robust security features of Windows Server 2022. Module 9 is dedicated to Remote Desktop Services (RDS), Module 10 covers Remote Access and Web Services, and Module 11 teaches Server and Performance Monitoring techniques. Lastly, Module 12 provides insights into Upgrade and Migration strategies for seamless transitions to Windows Server 2022. Overall, this Windows Server 2022 Administration course is designed to provide IT professionals with the expertise to efficiently manage and secure a Windows Server 2022 environment, contributing to the operational excellence of their organizations.

Who Should Attend

Koenig Solutions' Windows Server 2022 Administration course provides in-depth training for IT professionals to manage modern server environments.

System Administrators and IT Administrators

Network Administrators and Engineers

IT Systems Engineers

Windows Server Technicians

Infrastructure Architects

IT Professionals aiming to upgrade their skills in server management

Professionals preparing for Microsoft certification exams related to Windows Server

Helpdesk Technicians looking to advance their careers in server support

IT Managers overseeing Windows Server environments

Cloud Services Administrators managing Windows-based environments

IT Professionals transitioning from other platforms to Windows Server

LEARNING OBJECTIVES

- Implement and use Server Core administration tools
- Deploy domain controllers and configure Group Policy
- Configure DHCP, DNS and IPAM network infrastructure services
- Implement storage solutions such as Storage Spaces and DFS
- Configure Hyper-V virtual machines and containers
- Create failover clusters for high availability
- Implement Hyper-V Replica and Windows Server Backup
- Harden servers and configure JEA and update management

12 Modules, 94 Topics

01

2 Activities

Windows Server Administration

This module covers administration tools for Windows Server and introduces the different versions of Windows Server 2022.

LESSONS

- Overview of Windows Server administration principles and tools
- Introduction to Windows Server 2022
- Overview of Windows Server Core

AFTER COMPLETING THIS MODULE, STUDENTS WILL BE ABLE TO

- Describe and use administration tools in Windows Server
- Describe the key features of Windows Server 2022
- Implement and use Server Core

02

3 Activities

Identity Services in Windows Server

This module covers key identity roles in Windows Server, including Active Directory Domain Services (AD DS), Certificate Services, and Azure AD, the cloud-based identity service.

LESSONS

- Overview of AD DS
- Deploying Windows Server domain controllers
- Overview of Azure AD
- Implementing Group Policy
- Overview of AD CS

AFTER COMPLETING THIS MODULE, STUDENTS WILL BE ABLE TO

- Describe AD DS and explain how it works
- Deploy Windows Server domain controllers
- Describe Azure AD
- Use Group Policy to manage a Windows Server-based environment
- Describe and use AD CS

Network Infrastructure Services in Windows Server

This module covers core networking services in Windows Server, including DHCP, DNS, and IPAM.

LESSONS

- Deploying and managing DHCP
- Deploying and managing DNS services
- Deploying and managing IPAM

AFTER COMPLETING THIS MODULE, STUDENTS WILL BE ABLE TO

- Describe, configure, and use DHCP services in Windows Server
- Describe, configure, and use DNS
- Describe, configure, and use IPAM to manage networking services

File Servers and Storage Management in Windows Server

This module covers file systems, volumes, and storage management. It includes topics such as data deduplication, sharing, iSCSI, and DFS services.

LESSONS

- | | |
|---|-----------------------------------|
| ■ Volumes and file systems in Windows Server | ■ Implementing Data Deduplication |
| ■ Implementing sharing in Windows Server | ■ Implementing iSCSI |
| ■ Implementing Storage Spaces in Windows Server | ■ Deploying DFS |

AFTER COMPLETING THIS MODULE, STUDENTS WILL BE ABLE TO

- | | |
|---|---|
| ■ Describe volumes and file systems in Windows Server | ■ Describe and configure the Data Deduplication service |
| ■ Implement sharing in Windows Server | ■ Describe iSCSI |
| ■ Describe and implement Storage Spaces | ■ Deploy DFS |

Hyper-V Virtualization and Containers in Windows Server

This module focuses on virtualization services in Windows Server, covering Hyper-V, securing virtual environments, containers, and Kubernetes.

LESSONS

- Hyper-V in Windows Server
- Configuring VMs
- Securing virtualization in Windows Server
- Containers in Windows Server
- Overview of Kubernetes

AFTER COMPLETING THIS MODULE, STUDENTS WILL BE ABLE TO

- Describe and use the Hyper-V platform in Windows Server
- Configure VMs on the Hyper-V platform
- Secure virtualization environments in Windows Server
- Describe containers
- Describe Kubernetes

High Availability in Windows Server

This module is focused on high availability in Windows Server, with a primary emphasis on Failover Clustering.

LESSONS

- Planning for failover clustering implementation
- Creating and configuring failover clusters
- Overview of stretch clusters
- High availability and disaster recovery solutions with Hyper-V VMs

AFTER COMPLETING THIS MODULE, STUDENTS WILL BE ABLE TO

- Plan a failover clustering implementation
- Create failover clusters
- Describe stretch clusters
- Use failover clustering to achieve high availability with the Hyper-V platform

Disaster Recovery in Windows Server

This module covers technologies to implement disaster recovery in a Windows Server environment.

LESSONS

- Hyper-V Replica
- Backup and restore infrastructure in Windows Server

AFTER COMPLETING THIS MODULE, STUDENTS WILL BE ABLE TO

- Describe and implement Hyper-V Replica
- Implement backup and restore with Windows Server Backup

Windows Server Security

This module focuses on security technologies that address critical components of the Windows Server environment.

LESSONS

- Credentials and privileged access protection in Windows Server
- Hardening Windows Server
- Just Enough Administration (JEA) in Windows Server
- Securing and analyzing SMB traffic
- Windows Server update management

AFTER COMPLETING THIS MODULE, STUDENTS WILL BE ABLE TO

- Describe credentials and privileged access protection
- Harden a Windows Server environment
- Describe and implement JEA in Windows Server
- Secure and analyze SMB traffic
- Implement Windows Server update management

Remote Desktop Services (RDS) in Windows Server

This module focuses on Remote Desktop Services in Windows Server, including VDI implementations.

LESSONS

- Overview of RDS
- Configuring a session-based desktop deployment
- Overview of personal and pooled virtual desktops

AFTER COMPLETING THIS MODULE, STUDENTS WILL BE ABLE TO

- Describe and configure RDS
- Configure a session-based desktop deployment
- Implement personal and pooled virtual desktops

Remote Access and Web Services in Windows Server

This module covers remote access technologies and Internet Information Services (IIS) deployment and usage.

LESSONS

- Overview of Remote Access Services (RAS) in Windows Server
- Implementing VPNs
- Implementing Network Policy Server (NPS)
- Implementing Always On VPN
- Implementing a Web Server in Windows Server

AFTER COMPLETING THIS MODULE, STUDENTS WILL BE ABLE TO

- Describe and implement RAS in Windows Server
- Describe and implement VPNs
- Describe and implement NPS
- Describe and implement Always On VPN
- Describe and implement the Web Server role in Windows Server

Server and Performance Monitoring in Windows Server

This module covers monitoring tools and technologies available in Windows Server.

LESSONS

Overview of Windows Server monitoring tools · Using Performance Monitor · Monitoring event logs for troubleshooting

AFTER COMPLETING THIS MODULE, STUDENTS WILL BE ABLE TO

Describe and use performance monitoring tools · Describe and use server monitoring tools · Use event logs for troubleshooting

Upgrade and Migration in Windows Server

This module covers the tools available in Windows Server for server upgrades and migrations, including the AD DS migration and upgrade process.

LESSONS

- AD DS Migration
- Storage Migration Service
- Windows Server migration tools

AFTER COMPLETING THIS MODULE, STUDENTS WILL BE ABLE TO

- Describe and perform an AD DS migration and upgrade
- Describe and perform storage migration
- Describe and use Windows Server migration tools

Practise What You Learn

#	MODULE	ACTIVITY
01	Windows Server Administration	LAB 1: DEPLOYING AND CONFIGURING WINDOWS SERVER CORE ■ Exercise 1: Deploying and configuring Server Core ■ Exercise 2: Implementing and using remote server administration
02	Identity Services in Windows Server	LAB 1: IMPLEMENTING IDENTITY SERVICES AND GROUP POLICY ■ Exercise 1: Deploying a new domain controller on Server Core ■ Exercise 2: Configuring Group Policy ■ Exercise 3: Deploying and using Certificate Services
03	Network Infrastructure Services in Windows Server	LAB 1: IMPLEMENTING AND CONFIGURING NETWORK INFRASTRUCTURE SERVICES IN WINDOWS SERVER ■ Exercise 1: Deploying and configuring DHCP ■ Exercise 2: Deploying and configuring DNS ■ Exercise 3: Implementing IPAM
04	File Servers and Storage Management in Windows Server	LAB 1: IMPLEMENTING STORAGE SOLUTIONS IN WINDOWS SERVER ■ Exercise 1: Implementing Data Deduplication ■ Exercise 2: Configuring iSCSI storage ■ Exercise 3: Configuring redundant storage spaces ■ Exercise 4: Implementing Storage Spaces Direct
05	Hyper-V Virtualization and Containers in Windows Server	LAB 1: IMPLEMENTING AND CONFIGURING VIRTUALIZATION IN WINDOWS SERVER ■ Exercise 1: Creating and configuring VMs ■ Exercise 2: Installing and configuring containers
06	High Availability in Windows Server	LAB 1: IMPLEMENTING FAILOVER CLUSTERING ■ Exercise 1: Configuring iSCSI storage ■ Exercise 2: Configuring a failover cluster ■ Exercise 3: Deploying and configuring a highly available file server ■ Exercise 4: Validating the deployment of the highly available file server
07	Disaster Recovery in Windows Server	LAB 1: IMPLEMENTING HYPER-V REPLICA AND WINDOWS SERVER BACKUP ■ Exercise 1: Implementing Hyper-V Replica ■ Exercise 2: Implementing backup and restore with Windows Server Backup
08	Windows Server Security	LAB 1: CONFIGURING SECURITY IN WINDOWS SERVER ■ Exercise 1: Configuring Windows Defender Credential Guard ■ Exercise 2: Locating problematic accounts ■ Exercise 3: Implementing Local Administrator Password Solution (LAPS)
09	Remote Desktop Services (RDS) in Windows Server	LAB 1: IMPLEMENTING RDS IN WINDOWS SERVER ■ Exercise 1: Implementing RDS ■ Exercise 2: Configuring RemoteApp collection settings ■ Exercise 3: Configuring a virtual desktop template

#	MODULE	ACTIVITY
10	Remote Access and Web Services in Windows Server	LAB 1: DEPLOYING NETWORK WORKLOADS ■ Exercise 1: Implementing Web Application Proxy ■ Exercise 2: Implementing VPN in Windows Server ■ Exercise 3: Deploying and configuring a Web Server
11	Server and Performance Monitoring in Windows Server	LAB 1: MONITORING AND TROUBLESHOOTING WINDOWS SERVER ■ Exercise 1: Establishing a performance baseline ■ Exercise 2: Identifying the source of a performance problem ■ Exercise 3: Viewing and configuring centralized event logs
12	Upgrade and Migration in Windows Server	LAB 1: MIGRATING SERVER WORKLOADS ■ Exercise 1: Selecting a process to migrate server workloads ■ Exercise 2: Planning how to migrate files using the Storage Migration Service

WHAT IS INCLUDED

Everything You Need to Succeed

- Koenig course material for every module
- Delivery by certified instructors and subject matter experts
- Hands-on exercises throughout the course
- Course completion certificate from Koenig

ABOUT KOENIG

Who We Are

Established in 1993, Koenig Solutions is a globally recognised training provider with 35+ technology partnerships, 5,000+ training programmes and a network of certified instructors and subject matter experts, supporting individuals and enterprise teams worldwide.

FLEXIBLE DELIVERY

Learn the Way That Suits You

Classroom Training

Live Online Classes (ILO)

Fly-Me-A-Trainer (FMAT)

Flexi (Self-Paced)

1-on-1 Training

Ready to Get Started?

Talk to a learning advisor about schedules, group training and customised delivery.

Visit koenig-solutions.com

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