DATA & ICT · SHORT COURSE

Windows Server, Virtualisation and Enterprise Storage Administration

This practical course equips IT professionals, system administrators, network administrators, ICT officers, and infrastructure specialists with the knowledge and hands-on skills required to deploy, configure, manage, secure, and troubleshoot Windows Server environments, virtualised infrastructure, and enterprise storage systems.

DATES	23–27 Nov 2026	DURATION	5-day course
COURSE FEE	TZS 1,300,000 · per participant	VAT	Fee excludes VAT
VENUE	Arusha, Tanzania	DAILY HOURS	8:30 AM – 4:30 PM
FEE INCLUDES	Course materials, lunch and refreshments	CERTIFICATE	Certificate of attendance
TRAINER	Elly International training team	APPLICATIONS	Open for applications

Overview

This practical course equips IT professionals, system administrators, network administrators, ICT officers, and infrastructure specialists with the knowledge and hands-on skills required to deploy, configure, manage, secure, and troubleshoot Windows Server environments, virtualised infrastructure, and enterprise storage systems.

Participants will gain practical experience in Windows Server administration, Active Directory, DNS, DHCP, Group Policy, user and resource management, server security, virtualisation technologies, and enterprise storage concepts. The course also covers the design and administration of virtual machines, storage allocation, backup and recovery, high availability, and infrastructure monitoring.

Through guided laboratory exercises, realistic enterprise scenarios, troubleshooting activities, and practical case studies, participants will develop the skills required to manage reliable, secure, scalable, and highly available server and storage infrastructure within modern organisations.

Course content

Module 1: Windows Server Architecture and Administration

- Introduction to Windows Server and enterprise server environments
- Windows Server editions, roles, and features
- Server installation and deployment
- Server configuration and administration
- Server Manager and Windows Admin Center
- Server Core and Desktop Experience
- Local users, groups, and permissions
- File and folder management
- Windows Server networking fundamentals
- PowerShell for Windows Server administration

- Windows Server monitoring and performance management

Module 2: Active Directory Domain Services

- Introduction to Active Directory Domain Services (AD DS)
- Domain, forest, tree, and organizational unit concepts
- Installing and configuring domain controllers
- Creating and managing users, groups, and computers
- Organizational Units and delegation of administration
- Group types and group membership management
- Active Directory security and permissions
- Domain joining and computer management
- Active Directory replication concepts
- Active Directory troubleshooting
- Best practices for enterprise directory services

Module 3: DNS, DHCP and Network Services

- DNS concepts and Windows Server DNS
- Installing and configuring DNS
- DNS zones and records
- Forward and reverse lookup zones
- DNS troubleshooting and diagnostics
- DHCP concepts and architecture
- Installing and configuring DHCP Server
- DHCP scopes, reservations, and options
- DHCP failover
- IP address management
- Integrating DNS and DHCP in enterprise environments

Module 4: Group Policy and Windows Server Security

- Introduction to Group Policy
- Creating and managing Group Policy Objects (GPOs)
- User and computer configuration policies
- Security policies and access control
- Password and account policies
- Software deployment through Group Policy
- Windows Firewall configuration
- User rights and security settings
- Restricting access to system resources
- Auditing and security event monitoring
- Windows Server hardening
- Common server security threats and mitigation

Module 5: File Services and Enterprise Resource Management

- Windows file server architecture
- NTFS and share permissions
- Permission inheritance and access control
- File Server Resource Manager (FSRM)
- Storage quotas and file screening
- Distributed File System (DFS)
- DFS Namespace and DFS Replication

- Managing shared folders and enterprise file services
- Access-based enumeration
- File services security and auditing
- Enterprise file server troubleshooting

Module 6: Server Virtualisation and Hyper-V Administration

- Introduction to server virtualisation
- Virtualisation concepts and architectures
- Hyper-V architecture and components
- Installing and configuring Hyper-V
- Creating and configuring virtual machines
- Virtual CPUs, memory, disks, and network adapters
- Virtual switches and network configuration
- Virtual machine storage management
- Virtual machine checkpoints
- Virtual machine export, import, and migration
- Dynamic Memory and resource allocation
- Hyper-V monitoring and troubleshooting
- Virtualisation security and best practices

Module 7: Enterprise Storage Administration

- Introduction to enterprise storage systems
- DAS, NAS, and SAN architectures
- HDD, SSD, and enterprise storage technologies
- RAID concepts and configurations
- Storage pools and logical storage
- Storage Spaces and Storage Spaces Direct
- iSCSI and Fibre Channel concepts
- Configuring and managing iSCSI storage
- Storage provisioning and capacity management
- Storage performance monitoring
- Storage redundancy and fault tolerance
- Enterprise storage security
- Storage troubleshooting and performance optimisation

Module 8: Backup, Disaster Recovery and High Availability

- Backup and recovery concepts
- Windows Server Backup
- Full, incremental, and differential backups
- Backup planning and retention strategies
- File and system recovery
- Bare-metal recovery
- Disaster recovery planning
- Recovery Point Objective (RPO) and Recovery Time Objective (RTO)
- Failover and redundancy concepts
- Windows Server Failover Clustering
- Hyper-V high availability
- Business continuity planning
- Testing and validating disaster recovery procedures

Module 9: Windows Server Monitoring, Troubleshooting and Performance Optimisation

- Windows Server monitoring techniques
- Event Viewer and Windows logs
- Performance Monitor and Resource Monitor
- CPU, memory, disk, and network performance analysis
- PowerShell troubleshooting
- Diagnosing Active Directory problems
- DNS and DHCP troubleshooting
- Virtual machine performance troubleshooting
- Storage performance and capacity troubleshooting
- Identifying and resolving common server failures
- Performance optimisation and preventive maintenance
- Developing server monitoring and maintenance procedures

Module 10: Practical Enterprise Infrastructure Deployment

- Designing a Windows Server enterprise environment
- Deploying domain controllers and Active Directory
- Configuring DNS and DHCP services
- Implementing Group Policy and security controls
- Deploying Windows file services
- Creating and managing Hyper-V virtual machines
- Configuring virtual networks and storage
- Implementing enterprise storage solutions
- Configuring backup and recovery
- Monitoring and troubleshooting the infrastructure
- Enterprise infrastructure case study
- Development of a server and infrastructure administration plan

Who should attend

This course is designed for:

- System administrators
- Windows Server administrators
- Network administrators
- ICT officers and ICT managers
- IT infrastructure administrators
- IT support specialists
- Server and data centre technicians
- Cloud and virtualisation administrators
- Storage administrators
- Database administrators
- Cybersecurity professionals
- Network and infrastructure engineers
- Technical support engineers
- Systems engineers
- IT operations professionals
- Data centre professionals
- ICT managers and infrastructure decision-makers
- Professionals responsible for enterprise IT infrastructure

Suitable Sectors

The course is particularly relevant to government ministries, departments and agencies, local government authorities, banks and financial institutions, telecommunications companies, universities and educational institutions, hospitals and healthcare organisations, NGOs, development organisations, corporate enterprises, data centres, technology companies, and other organisations that operate Windows Server, virtualised, and enterprise storage infrastructure.

How to apply

Apply online at elly.wysyntaxtest98.or.tz. Your place is confirmed only after we review your application and contact you, within 1 working day.

Apply for this course | Ask on WhatsApp | Email us

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Details correct as of 8 November 2026.