

# Enterprise Windows Infrastructure Security

## Course Syllabus

Master enterprise networking, Windows Server administration, Active Directory, DNS, DHCP, IIS, VPN, DFS, FTP, Group Policy, virtualization, and infrastructure management with hands-on practical labs.

### // COURSE INFORMATION

## Course Information

DURATION	4 Months / 16 Weeks / 120 Hours
LEVEL	Beginner to Advanced
MODULES	14
FORMAT	Hands-on Labs / Hybrid (Online + Indore Classroom)

### // COURSE OVERVIEW

## Course Overview

The Enterprise Windows Server Administration and Networking program is designed to provide practical and industry-ready skills in enterprise networking and Windows Server infrastructure management. This comprehensive course covers networking fundamentals, Windows Server administration, Active Directory Domain Services, DNS and DHCP, IIS web hosting, VPN configuration, backup and recovery strategies, and enterprise infrastructure security. Students will learn to install Windows Server, configure enterprise services, manage Active Directory environments, troubleshoot infrastructure issues, secure enterprise systems, and perform backup and recovery operations.

### // LEARNING OBJECTIVES

## Learning Objectives

- Deploy and manage enterprise Windows Server infrastructure
- Configure and secure Active Directory Domain Services
- Implement Group Policy for centralized security enforcement
- Deploy and manage DNS and DHCP services
- Configure IIS web servers with SSL/HTTPS
- Set up and secure FTP and proxy servers
- Configure VPN remote access solutions
- Plan and implement backup and disaster recovery strategies
- Manage enterprise file sharing with DFS and NTFS permissions

- Troubleshoot enterprise infrastructure issues

## // PREREQUISITES

### Prerequisites

- Basic computer knowledge
- Familiarity with Windows operating systems
- Basic networking knowledge (recommended)
- No prior server administration experience required

## // MODULE BREAKDOWN

### Module Breakdown

#### 01 Networking Fundamentals

- Introduction to Networks
- Types of Networks
- Internet and Intranet
- IP Addressing
- Public and Private IP Addresses
- Classful and Classless Addressing
- Subnetting
- Network Topologies
- Networking Devices
- OSI and TCP/IP Models
- TCP and UDP Protocols
- Client-Server Networks
- Peer-to-Peer Networks

#### 02 Lab Setup and Virtualization

- Virtualization Concepts
- Benefits of Virtualization
- VirtualBox Overview
- VM Configuration
- Network Modes (NAT, Bridged, Host-Only, Internal)
- Storage Management
- Advanced Networking Features

#### 03 Windows Server Management

- Windows Server Editions
- Windows Server Features
- Installation and Configuration
- Server Roles and Features
- Administrative Tools
- Server Manager Interface
- PowerShell Administration

## **04 Dynamic Host Configuration Protocol (DHCP)**

- DHCP Concepts
- DHCP DORA Process
- DHCP Lease Mechanism
- Configuring DHCP Scopes
- IP Reservations
- Address Pools and Exclusions
- DHCP Failover and High Availability

## **05 Domain Name System (DNS)**

- DNS Fundamentals
- DNS Records (A, AAAA, CNAME, MX, SRV, PTR)
- DNS Zones
- Forward and Reverse Lookup Zones
- DNS Caching
- Dynamic DNS
- Zone Transfers
- DNS Security

## **06 Windows Operating System Administration**

- User Management
- Group Management
- User Rights and Privileges
- Password Policies
- Security Groups
- User Profile Management
- Group Policy Management
- NTFS Permissions
- Audit Policies and Logging

## **07 Active Directory Domain Services (AD DS)**

- AD DS Architecture
- Domains and Forests
- Domain Controllers
- Organizational Units (OUs)
- Active Directory Users and Groups
- DNS Integration with AD
- NTDS.dit Database
- AD Replication and Sites

## **08 Group Policy Objects (GPO)**

- Group Policy Management Console
- Administrative Templates
- Folder Redirection
- Login Scripts
- Software Deployment via GPO

- GPO Inheritance and Filtering
- Security Settings via GPO
- GPO Troubleshooting

## **09 File Services & Distributed File System (DFS)**

- NTFS and FAT32 File Systems
- File and Folder Permissions
- Shared Resource Permissions
- DFS Namespaces
- File Server Resource Manager (FSRM)
- Quota Management
- File Screening
- Access-Based Enumeration

## **10 Web Server (IIS)**

- IIS Installation and Configuration
- Virtual Directories
- Multiple Website Hosting
- Application Pools
- SSL Certificate Installation
- HTTPS Configuration
- URL Rewrite Rules
- IIS Logging and Monitoring
- IIS Security Hardening

## **11 FTP Server Administration**

- FTP Server Installation
- FTP Site Configuration
- User Management and Access Control
- SSL/TLS Security for FTP
- FTP Logging and Monitoring
- FTP Client Operations
- Firewall Configuration for FTP

## **12 Proxy Server Administration**

- Proxy Server Concepts
- Proxy Protocols
- Access Control Configuration
- Content Filtering
- Port Forwarding
- NAT Configuration
- Caching and Performance

## **13 Remote Access and VPN Configuration**

- Remote Access Technologies
- VPN Concepts and Protocols
- VPN Server Configuration

- VPN Client Configuration
- Remote Desktop Services
- VPN Logging and Monitoring
- Network Policy Server (NPS)
- Remote Access Security Hardening

## 14 Windows Server Backup, Restore & Recovery

- Windows Server Backup Feature
- Backup Planning and Scheduling
- Recovery Strategies
- Active Directory Recovery
- Startup Troubleshooting
- Disaster Recovery Planning
- Bare Metal Recovery
- System State Backup and Restore

### // TOOLS & HANDS-ON LABS

## Tools & Hands-On Labs

- Virtualized enterprise lab with VirtualBox
- Multi-server Windows Server environment
- Active Directory domain with client machines
- DNS and DHCP service deployment
- IIS web server with SSL certificates
- VPN and remote access configuration lab
- DFS and file server scenarios
- Backup and recovery test environments
- Real-world enterprise infrastructure scenarios

### // TRAINING MODE

## Training Mode

Every Armour Infosec course runs as a unified programme delivered in two parallel modes — the same curriculum, the same trainers, the same certification, regardless of how you join.

- ✓ Online Live Classes — real-time, instructor-led, fully interactive sessions
- ✓ On-Premise Classroom Training — in-person at our Indore centre (Sudama Nagar)
- ✓ Both modes run concurrently in every batch; switch between them as your schedule needs
- ✓ Same syllabus, lab access, and certification track for online and on-premise students

### // CERTIFICATIONS & CAREER OUTCOMES

## Certifications & Career Outcomes

This course aligns with industry-recognised certifications and prepares graduates for offensive-security, application-security, and infrastructure-security roles.

- Microsoft Certified: Windows Server Hybrid Administrator
- CompTIA Server+

- CompTIA Network+
- Foundation for Active Directory security courses

**// ENROL WITH ARMOUR INFOSEC**

## **Enrol With Armour Infosec**

Reach out to discuss enrolment, batch schedule, and lab access. Our Indore training centre runs both in-person and live online cohorts with placement assistance.

<b>PHONE</b>	+91 99777 47168
<b>EMAIL</b>	info@armourinfosec.com
<b>ADDRESS</b>	674, Sudama Dwar, Narendra Tiwari Marg, Sudama Nagar, Indore, Madhya Pradesh 452009
<b>WEBSITE</b>	<a href="https://armourinfosec.com">https://armourinfosec.com</a>



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