Advanced IT Administrator & Endpoint Specialist

Comprehensive 2-Week Professional Development Bootcamp

Format: Classroom / Face-to-Face **Duration:** 2 Weeks (10 Days / 80 Hours) **Target Role:** IT Support Administrator

COURSE DESCRIPTION & OBJECTIVES

This intensive two-week training program is specifically designed for working IT Support Administrators looking to elevate their operational skill sets. The curriculum spans core network infrastructure, hybrid Active Directory and Microsoft Entra ID management, Windows Server administration, Microsoft 365 services, Microsoft Intune endpoint management, and enterprise cybersecurity best practices.

COURSE TABLE OF CONTENTS

Module 1: Enterprise Network Infrastructure & Core Services

Topic 1.1: Enterprise Network Protocols & Subnetting

- Enterprise TCP/IP architecture & IPv4/IPv6 addressing principles
- Subnetting math & Classless Inter-Domain Routing (CIDR) calculations
- VLAN tagging, trunking, and inter-VLAN routing fundamentals
- Switch and gateway configuration verification techniques

Topic 1.2: Network Diagnostics & Troubleshooting Toolsets

- Command-line toolset mastery (ping, traceroute, nslookup, netsh, pathping)
- Identifying MTU issues, latency spikes, and packet loss bottlenecks
- Wireshark packet capture analysis and traffic filtering strategies

Topic 1.3: Core Network Services (DNS & DHCP)

- Internal vs. External DNS architecture design
- Managing DNS record types (A, CNAME, MX, TXT, SRV), forwarders, and scavenging
- DHCP scope administration, options (Gateway, DNS, PXE), and IP reservations
- Enterprise DHCP Failover and high-availability scope setups

Topic 1.4: Remote Access & Wireless Administration

- IPsec and SSL VPN tunnel architectures and client-side configurations
- Enterprise Wireless Security (WPA3 Enterprise, 802.1X EAP-TLS authentication)
- Network Policy Server (NPS) and RADIUS server integration

Module 2: Hybrid Identity & Active Directory Administration

Topic 2.1: On-Premises Active Directory Domain Services (AD DS)

- Organizational Unit (OU) structure design & object lifecycle management
- Delegating administrative control safely and securely
- AD DS site topology, subnet association, and domain controller replication health

Topic 2.2: Group Policy Infrastructure (GPO)

- Group Policy creation, enforcement, and processing order (LSDOU)
- Target filtering using WMI filters and Security Filtering
- GPO loopback processing for shared systems
- Advanced GPO troubleshooting with gpresult and Resultant Set of Policy (RSoP)

Topic 2.3: Cloud Identity with Microsoft Entra ID

- Microsoft Entra ID tenant architecture vs. Active Directory DS
- User, cloud group, and administrative role (RBAC) management
- Entra ID custom domain validation and licensing enforcement

Topic 2.4: Hybrid Identity Synchronization

- Microsoft Entra Connect Sync installation and topology options
- Password Hash Synchronization (PHS) vs. Pass-Through Authentication (PTA)
- Seamless Single Sign-On (SSO) rollout and sync error remediation

Module 3: Windows Server Administration & ITSM Operations

Topic 3.1: Windows Server Storage & Access Control

- NTFS permissions vs. SMB Share permissions configuration
- Access-Based Enumeration (ABE) and inheritance management
- Disk Management, Storage Spaces, and file share migrations

Topic 3.2: Maintenance, Logging & Automation

- Event Viewer log filtering, custom views, and event subscriptions
- Automating administrative maintenance with Task Scheduler
- Foundational PowerShell syntax, cmdlets, pipelines, and scripting for sysadmins

Topic 3.3: Applied IT Service Management (ITSM)

- ITIL v4 operational frameworks for support engineers
- Incident, Problem, Change, and Service Request Management workflows
- Service Level Agreement (SLA) and Operational Level Agreement (OLA) monitoring

Topic 3.4: Service Desk Operations & Support Excellence

- Ticket prioritization matrices and escalation paths
- Root Cause Analysis (RCA) reporting and post-incident reviews
- Technical documentation best practices and knowledge base creation

Module 4: Microsoft 365 & Intune Endpoint Management

Topic 4.1: Microsoft 365 Core Services Administration

- M365 Admin Center user provisioning and resource allocation
- Exchange Online mail flow rules, shared mailboxes, and message tracing
- Microsoft Teams tenant policy administration and troubleshooting

Topic 4.2: Cloud Device Enrollment Strategies

- Microsoft Intune MDM architecture and enrollment prerequisites
- Automated deployment via Windows Autopilot
- Bulk enrollment, user-driven enrollment, and BYOD strategies
- Company Portal deployment and end-user onboarding

Topic 4.3: Application Lifecycle Management

- Packaging and deploying Win32 applications (.intunewin) and LOB apps
- Microsoft 365 Apps deployment profiles
- Configuring automated software updates and third-party patching

Topic 4.4: Configuration Profiles & OS Customization

- Managing Windows 11 policies via Intune ADMX templates
- Customizing settings catalog profiles and local user/group policies
- Cloud delivery of corporate Wi-Fi and VPN configuration profiles

Module 5: Enterprise Cybersecurity, Compliance & Capstone

Topic 5.1: Endpoint Protection & Security Baselines

- Microsoft Defender for Endpoint deployment and management
- Attack Surface Reduction (ASR) rules and threat mitigation
- BitLocker encryption policy enforcement and key recovery management

Topic 5.2: Access Control & Zero Trust Framework

- Enforcing Multi-Factor Authentication (MFA) and Self-Service Password Reset (SSPR)
- Configuring Entra ID Conditional Access policies based on device compliance state
- Privileged Identity Management (PIM) fundamentals

Topic 5.3: Security Incident Response & Remediation

- Detecting and isolating compromised endpoints remotely
- Remediating identity breaches and compromised credentials
- Security log analysis and audit trail tracking

Topic 5.4: Practical Hands-on Capstone Lab

- Live scenario: Resolving broken Entra Connect synchronization
- Live scenario: Diagnosing complex network connectivity outages
- Live scenario: Resolving Intune Autopilot & app deployment failures
- Live scenario: Containing a simulated endpoint ransomware infection