MTA Server Administration Fundamentals Course

Session 1

Section A: Introduction

- Prerequisites
- Microsoft Certification Paths
- Server Administration Benefits
- Server Administration Topics

Section B: Installing Windows Server

- Windows Server Editions
- Installation Types
- Upgrade vs. Clean Install
- Interactive Installs
- Unattended Installs
- WDS Installs
- Post Installation Tasks
- Installing Device Drivers

Section C: Server Types

- Network Layer Servers
- Access Servers
- Network Service Servers
- User Service Servers
- Application Server Models
- Virtualized Services
- Proper Startup and Shutdown

Section D: Windows Server Roles

- Application Servers
- Remote Access
- Enable Remote Access
- Remote Desktop Client
- Add Web Server Role
- Managing IIS
- Add New Web Site
- Configuring Web Site Options
- SSL Options
- Application Pools

Section E: File and Print Servers

- Installing a Printer
- Printer Sharing
- Driver Deployment
- Share Level vs. NTFS Level Shares
- User Rights vs. User Permissions

- Object Auditing

Section F: Active Directory

- Active Directory Defined
- Active Directory Components
- Operation Masters
- Understanding Replication
- Domain Functional Levels
- Forest Functional Levels
- Trusts and Namespaces

Section G: Managing Active Directory

- Understanding Group Policies
- Computer Config vs. User Config Policies
- Policy Categories
- Review Group Policy Results
- Local Group Policy Editor
- User Accounts
- User Account Properties
- Creating Groups
- Group Properties
- Active Directory Containers
- Delegation

Session 2

Section A: Internal Server Storage

- SCSI Overview
- SCSI-1
- SCSI-2
- SCSI-3
- Newer SCSI Standards
- LVD and HVD
- Multimode and Single-Ended
- Connecting SCSI Devices
- IDE Systems
- ATA Implementations
- SATA Implementations
- Serial Attached SCSI
- Storage Considerations

Section B: External Server Storage

- Fibre Channel Overview
- Fibre Channel Interfaces
- Fibre Channel Arrays
- SMF vs. MMF
- Fibre Channel Connectors
- Fibre Channel Speeds
- Fibre Channel Architectures
- iSCSI
- FCIP
- SATA

- NAS vs. SAN
- Backup Storage

Section C: Understanding RAID

- RAID Benefits
- RAID 0
- RAID 1
- RAID-5
- Complex RAID Arrays
- RAID Technologies

Section D: Configuring RAID

- Standard RAID Levels
- Nested RAID Levels
- Software-Based RAID
- Initializing Disks
- New Striped Volume
- Verify Striped Volume
- Mirrored Volume
- RAID-5 Volume
- Failed Redundancy

Section E: Server Virtualization

- Virtualization Methods
- Benefits of Virtualization
- VM Components
- VM Management
- Hyper-V

Section F: Basic Server Administration

- Hardware Compatibility
- Microsoft Hardware Compatibility Catalog
- Patch Management
- Server Monitoring
- Basic Administration Tips

Session 3

Section A: Server Maintenance

- Working with Disk Management
- Create New Simple Volume
- Advanced Disk Features
- Business Continuity
- Understanding ITIL
- Windows Update Options
- Review Update History

Section B: Processors and Memory

- Multiprocessing
- Multi vs. Dual Processors

- Processes, Threads, and Fibers
- 64-Bit Processors
- WOW32 and WOW64
- 64-Bit Operating Systems
- Processor Features
- Server Memory
- Advanced Memory Features
- Memory Redundancy
- Selecting Memory

Section C: Performance Baselines

- Performance Analysis
- Creating a Baseline
- Viewing Performance Reports
- Processor Bottlenecks
- I/O Bottlenecks
- Disk Bottlenecks
- Performance Counters
- Trend Analysis

Section D: Troubleshooting Server Problems

- Troubleshooting
- Identifying the Problem
- Theorize
- Test the Theory
- Establish and Enact the Plan
- Post-Repair Testing
- Root Cause Analysis
- Documentation

Section E: Booting the Server

- Boot Process
- Advanced Boot Options
- Managing Services
- Service Status and Startup Type
- Configuring Service Accounts
- Service Recovery Options
- Managing Services via Command Prompt

Section F: Using Event Viewer

- Event Viewer
- Viewing Events
- Filtering Events
- Custom Views
- Assigning Tasks to Events
- Event Subscription
- Event Log Settings

Section G: Disaster Recovery

- Disaster Recovery Plan
- Handling a Disaster

- Redundancy
- Data Retention
- Data Destruction