

t Ebo Road South, Suite 18 • Brewster, New York • 10509 Phone – (845) 279-9400 • Fax – (845) 279-9413

WHAT'S IN 98-366 NETWORKING FUNDAMENTALS:

MTA validates building-block technology concepts and helps students explore, discover and pursue successful careers in Information Technology (IT) in an exciting and rewarding way! As the first step in the Microsoft Technology Certification Series, this new, entry-level certification provides students with confidence, credibility, and differentiation.

TARGET AUDIENCE:

Individuals looking to get started in Networking fundamentals.

PREREQUISITES:

Familiarity with general networking concepts and the technologies. Some hands-on experience with Windows Server, Windows-based networking, network management tools, DNS, TCP/IP, names resolution process, and network protocols and topologies.

DURATION:

12 hours



TOPICS COVERED IN 98-366 NETWORKING FUNDAMENTALS:

<u>Understanding Local Area Networking</u> Examining Local Area Networks, Devices, and Data Transfer

- Defining a LAN
- Identifying Types of LANs
- Getting to Know Perimeter Networks
- **Identifying Network Topologies and Standards**
- Identifying Network Topologies
- Defining Ethernet Standards
- Identifying the Differences between Client/Server and Peer-to-Peer

Defining Networks with the OSI Model

Understanding OSI Basics

• Defining the OSI Model Layers

Defining the Communications Subnetwork

- Understanding Layer 2 Switching
- Understanding Layer 3 Switching
- Understanding Characteristics of Switches

Defining the Upper OSI Layers

- Defining the Transport Layer
- Defining the Session Layer
- Defining the Presentation Layer
- Defining the Application Lever
- Reviewing the OSI Layers
- Defining the TCP/IP Model

Understanding Wired and Wireless Networks

Recognizing Wired Networks and Media Types

- Identifying and Working with Twisted-Pair Cables
- Identifying and Working with Fiber Optic Cable

Understanding Wireless Networks

- Identifying Wireless Devices
- Identifying Wireless Networking Standards

Understanding Internet Protocol

Working with IPv4

- Categorizing IPv4 Addresses
- Default Gateways and DNS Servers
- Defining Advanced IPv4 Concepts

Working with IPv6

- Understanding IPv6
- Configuring IPv6

Implementing TCP/IP in the Command Line Using Basic TCP/IP Commands

- Working with the Command Prompt Window
- Working with ipconfig and ping

Working with Advanced TCP/IP Commands

- Using netstat and nbtstat
- Using tracert and pathping
- Using nslookup
- Using ftp and telnet
- Using Windows PowerShell
- Using net

Working with Networking Services

Setting Up Common Networking Services

• Working with the Dynamic Host Configuration Protocol (DHCP)

Introducing Remote Administration

Defining More Networking Services

- Defining RRAS
- Defining IPsec

Defining Name Resolution Techniques

- Defining DNS
- Defining WINS

Understanding Wide Area Networks Understanding Routing

- Identifying Static and Dynamic Routing Understanding Quality of Service (QoS) Defining Common WAN Technologies and Connections
- Defining Packet Switching





16 Mount Ebo Road South, Suite 18 • Brewster, New York • 10509 Phone – (845) 279-9400 • Fax – (845) 279-9413

- Defining T-Carriers
- Defining Other WAN Technologies and Internet Connectivity

Defining Network Infrastructures and

Network Security

Understanding Networks Outside the LAN

- Defining the Internet
- Defining Intranets and Extranets

Configuring VPN Connections and

Authentication

- Selecting Types of VPN Protocols
- Selecting Authentication for VPN Connections
- Creating a VPN Connection using the Create a VPN Connection Wizard
- Creating a VPN Connection Using Windows 10 Settings
- Using Connection Manager (CM) and the Connection Manager Administration Kit (CMAK)

Understanding Security Devices and zones

• Defining Firewalls and Other Perimeter Security Devices