

Course Outline



Tel: +44 (0) 118 979 4000 Fax: +44 (0) 118 979 4000

Email: training@ptr.co.uk Web: www.ptr.co.uk

Networking Fundamentals

Course Description:

This course covers the fundamentals of local area networking, defining networks with the OSI Model and understanding wired and wireless networks. In addition it includes understanding Internet Protocol, implementing TCP/IP and working with networking services. You will better understand wide area networks along with defining network infrastructures and network security.

This course leads to the Microsoft Technology Associate Certification (a new entry level credential that validates fundamental technology knowledge among students seeking to build a career in technology). This course will prepare delegates for the MTA 98-372 exam. This will also serve as a stepping stone to the Microsoft Certified Technology Specialist Exams.

Pre-requisites:

Course Content:

- **Understanding Local Area Networking**
 - 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 Distributed Networks

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- **Defining Networks with the OSI Model**
 - Understanding OSI Basics:-
 - Defining the Layers in the OSI Model
 - Defining The Communications Subnetwork:-
 - Defining the Upper OSI Layers:-
 - Reviewing the OSI Layers
 - Defining the TCP/IP Model
- **Understanding Wired and Wireless Networks**
 - Recognising Wired Networks and Media Types:-
 - Identifying and Working with Twisted Pair cables
 - Identifying and Working with Fiber Optic Cable
 - Comprehending Wireless Networks:-
 - Identifying Wireless Devices
 - Identifying Wireless Networking Standards
- **Understanding Internet Protocol**
 - Working with IPv4:-
 - Categorising IPv4 Addresses
 - Default Gateways and DNS Servers
 - Defining Advanced IPv4 Concepts
 - Defining Classless Inter-Domain Routing (CIDR)
 - Working with IPv6:-
 - Understanding IPv6
 - Configuring IPv6
- **Implementing TCP/IP in the Command-Line**
 - Using Basic TCP/IP Commands:-
 - Working with the Command Prompt
 - Working with Ipconfig and ping
 - Working with Advanced TCP/IP Commands

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- **Working with Networking Services**
 - Setting up Common Networking Services:-
 - Working with DHCP
 - Working with Terminal Services
 - 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
 - Defining Common WAN Technologies and Connections:-
 - Defining Packet Switching
 - 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
 - Understanding VPNS
 - Understanding Security Devices and Zones:-
 - Defining Firewalls and Other Perimeter Security Devices
 - Redefining the DMZ

Course Duration:

2 Days

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