



Skillsfuture@PA PC Networking in 9 Hours + Hands-on

Introduction:

This course will introduce the basic concept of networking for novices who wish to connect their PCs together. It will help participants to master the skills they need to setup their own Network to share information, equipment and even Internet connection. There will be hands-on practices to setup and configure the network.

Objective:

On completion, participants will be able to:

- Purchase the right network equipment
- Network your computers and other devices together
- Configure and navigate your network
- Share information and equipment in the network
- troubleshoot the Local Area Network
- Share Internet Connection

Teaching Approach:

There will be brief lecture presentation interspersed with examples, demonstration and hands-on exercises. Case Studies will be used to reinforce participants learning of the topics covered.

Who Should Attend:

This course is for computer users who already have general understanding of computer and Microsoft Windows. Mainly meant for:

- People who are curious and want to connect their computers together
- Owners or Managers of small businesses who want to network few PCs together to share files.
- Home or Small business users who wanted to enable every PC to access Internet?

Requirements:

You should preferably completed:

- PC DIY in 9 hrs + Hands-on
- PC Preparation in 9 hrs + Hands-on

or have practical networking experience

Course Outline

- 1. An Introduction to Networking**
 - Why Use Networks?
 - Types of Networks
 - Differences between LANs and WANs
 - How Networks are Used
- 2. Introduction to various networking devices:**
 - Routers and Bridges
 - Hubs and Switches
 - Broadband Modems
 - Gateway and Firewalls etc.
- 3. Common Topologies and Connection Options**
 - Bus, Star, Ring and Mesh topology
 - Network cabling options
 - Network architectures
 - Types of cables
 - Cabling and troubleshooting.
 - Connection rates and terminology
- 4. TCP/IP Fundamentals**
 - Use of Domain Name System (DNS)
 - The ICMP, TCP and UDP Protocols
 - Assigning IP Addresses
 - Dynamic Host Configuration Protocol (DHCP)
 - DHCP Lease
 - Static vs Dynamic IP
- 5. Network basic and configuration:**
 - Setting IP Addressing
 - Network Class
 - Subnet Mask
 - Viewing IP Configuration Settings
 - Sharing files and folders
 - Network troubleshooting.
 - PING test, ipconfig, tracert etc.
- 6. Understanding the OSI Reference Model**
 - Understanding each of the seven layers
 - The encapsulation process
 - Mapping equipment and protocols to the appropriate layers
- 7. Practical Labs**