

Hands-On

# Basic Networking Fundamentals



## Course Description

This Hands-On course covers an introduction to Basic Networking, its components and High Speed Internet Services.

Attendees will gain a tremendous Hands-On experience on the set-up and configuration of LANs (Local Area Networks) & Networking Technologies.

Students will learn routing procedures of the internet and an overview of internet protocols. The course also provides Hands-On labs to install routers, modems and associated software and hardware to access the Internet and Intranet.

The training also includes configuring the networks for wireless access and the installing of wireless adapters and much more...



## Students Will Learn

- **PC Functions & Terminology**
- **Network Components and Hardware (Hubs, Routers, Switches and more)**
- **Basic Protocols and Set-up Configurations**
- **Internet Applications**
- **Troubleshooting Cables & Connections**
- **And Much More...**

## Target Audience

Anyone requiring Hands-On skills for supporting, installation and/or maintenance of a computer network(s).

## Prerequisites

Helpful but not required Basic computer skills.

## Course Outline

### Module 1: Computers 101

- Understanding Basic Architecture
- Mother Board
- CPU
- Memory
- ESD Electrostatic Discharge
- Proper Hardware and Software Installation
- Plug and Play
- Loading Drivers
- Auto-Run
- Installing Ethernet Adapter(s)
- Pulling Cables
- Supporting Cables
- Connector Types
- Cable Management
- Quality Workmanship
- Cable Terminating
- Termination Tools
- Termination
- Testing
- And More...

### Module 2: Components of a Network ?

- Hubs
- Modems
- Routers
- Switches
- Splitters
- Filters
- And More...

### Module 3: Network, Internet Set-up and Applications

- Organizations and Standards IP Addresses
- IP Address Configuration
- DHCP Addressing
- Static Addressing
- History

- The Internet
- Basic & Advanced Functions
- Safety & Awareness
- e-Mail Set-Up and Configurations
- Security (Firewalls and SpyWare, etc.)
- Folders/Sharing
- Printers and Drivers
- Up-loading and Down-loading
- Speed Tests
- Wireless Set-up and Components
- and More...

#### **Module 4: Understanding HSI (High Speed Internet) Services & Applications Connections**

- xDSL ConnectionsCable / Broadband
- Satellite Connections
- Wireless Communications
- Voice Over IP
- and More

#### **Delivery Method**

Instructor-Led with numerous Hands-On Labs and Exercises.

#### **Equipment Requirements**

**(This apply's to our hands-on courses only)**

BTS always provides equipment to have a very successful Hands-On course. BTS also encourages all attendees to bring their own equipment to the course. This will provide attendees the opportunity to incorporate their own gear into the labs and gain valuable training using their specific equipment.

#### **Course Length**

2 Days