

Hands-On

# HSI Home Installation & Troubleshooting

(High Speed Internet) using PC's, Routers, Modems, Wireless and Gaming Devices



## Course Description

This Hands-On course covers an introduction to the Internet and its components and High Speed Internet services. Attendees will gain a tremendous Hands-On experience on the set-up and configuration at the CPE (Customer Premise) of these new and complex technologies. Students will learn routing procedures of the internet and an overview of internet protocols.

The course also provides Hands-On labs for technicians to install routers, modems, today's gaming devices and associated software and hardware to access the internet at the customer location(s).

The training also includes configuring the networks for wireless access and the installing of wireless adapters, gaming devices (i.e. xBox Connect, Playstation, Wii, etc.) Web-Enabled HDTV's and Video hook-ups and much more...

## Students Will Learn

- **Internet/PC Functions & Terminology Basic & Advanced Functions... e-mail Set-up & Configurations, Security (Firewalls, Spyware), Safety & Awareness, Exploring, Folders & Sharing, Up-loading & Down-Loading, FTP Applications, File Back-up, Speed Tests, more...**
- **Internet Applications Dial-Up, xDSL, Cable, Satellite, Voice, Data, Video, and more...**
- **CPE System Components & Configurations Modems, Routers, Splitters, Filters, more**
- **Troubleshooting Cables & Connections Cat 5 & 6 Cable Preparation and Testing, Find-Test-Troubleshoot Common Connection Errors, and more...**
- **Hands-on Exercises using Desktops/Laptops, Routers, Adapters, Security Adapters/filters and more...**
- **Installation, Configuration and Troubleshooting of Today's Gaming Devices (i.e. xBox Connect, Playstation, Wii, etc.)**
- **Installation, Configuration and Troubleshooting Web-Enabled TVs/HDTV's and Video hook-ups and much more...**
- **And Much More...**

## Target Audience

OSP Technicians, CO Technicians, ILEC Installation, Repair and Maintenance Technicians, CLEC ADSL Installation Technicians, CLEC Network Technicians, DSL Technical Support Technicians, DSL Group Managers Sales & Marketing Support Managers and anyone requiring Hands-On skills for supporting, installation and/or maintenance of High Speed Internet services.

## Prerequisites

Helpful but not required Basic telephony concepts. Basic computer skills.

## Course Outline

### Module 1: Computers 101

1. Understanding Basic Architecture
2. Mother Board
3. CPU
4. Memory
5. ESD Electrostatic Discharge
6. Proper Hardware and Software Installation
7. Plug and Play
8. Loading Drivers
9. Auto-Run
10. Installing Ethernet Adapter(s)
11. and More...

### Module 2: CAT5 & CAT6 Cable Preparation, Installation

1. Codes and Standards
2. Pulling Cables
3. Supporting Cables
4. Connector Types
5. Cable Management
6. Quality Workmanship
7. Cable Terminating
8. Termination Tools
9. Termination
10. Testing
11. and More...

### Module 3: Components of a CPE System

1. Hubs

2. Modems
3. Routers
4. Switches
5. Splitters
6. Filters
7. and More...

#### **Module 4: Introduction to the Internet**

1. History
2. The Internet
3. Basic & Advanced Functions
4. Safety & Awareness
5. e-Mail Set-Up and Configurations
6. Security (Firewalls and SpyWare, etc.)
7. Folders/Sharing
8. Up-loading and Down-loading
9. Speed Tests
10. Organizations and Standards IP Addresses
11. DHCP Addressing
12. Static Addressing
13. and More...

#### **Module 5: Installation, Configuration and Troubleshooting of Today's Gaming Devices/TVs**

1. Gaming Devices
2. Web-Enabled TVs/HDTV's
3. Video hook-ups
4. Troubleshooting Home Systems
5. and More...

#### **Module 6: Understanding HSI (High Speed Internet) Services & Applications**

1. Dialup Connections
2. xDSL Connections
3. Cable / Broadband
4. Satellite Connections
5. Wireless Communications
6. Voice Over IP
7. and More...

**\* Note:**

All CPE (Customer Premise Equipment) can be exchanged with equipment that you are currently installing, and can be incorporated into this course free of charge. This applies to our On-Site / Hosted courses only.

## **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