

## A+ Syllabus

### Course Details:

- Duration: 30 Hours
- Certificates: A+.
- Exams: 220-701, 220-702.

### The A+ Certification

- CompTIA A+ (Computer Maintenance).

#### **Chapter 1: Introduction**

- A+ Certification.
- What is the A+ Exam like ?
- Testing Centers.
- Testing Costs.

#### **Chapter 2: PC Technician Essentials**

- PC Tools.
- Preventing Electrostatic Discharge.
- The CompTIA Six-Step Troubleshooting Process.
- Numbering Systems Used in Computers.
- Measuring Data Transfer and Frequency.
- Important Websites.

#### **Chapter 3: PC Anatomy**

- The Essential Parts of Any Computer.
- Points of Failure.
- Hardware, Software, and Firmware.
- Working Inside Your PC.
- Hardware Resources.

#### **Chapter 4 :Motherboards, Processors and Adapter Cards**

- Motherboards and Their Components.
- Processors and CPUs.
- Installing Adapter Cards.

## **Chapter 5: BIOS**

- Understanding BIOS, CMOS, and Firmware.
- Configuring the System BIOS.
- Power-On Self-Test and Error Reporting.
- BIOS Updates.

## **Chapter 6: Power Supplies and System Cooling**

- Power Supplies.
- Power Protection Types.
- Troubleshooting Power Problems.
- System Cooling.

## **Chapter 7: RAM**

- RAM Basics.
- RAM Types.
- Operational Characteristics.
- Installing Memory Modules.
- Troubleshooting Memory.
- Preventative Maintenance for Memory.

## **Chapter 8 : I/O and Multimedia Ports asnd Divices**

- Understanding I/O Ports.
- Understanding Input Devices.
- Understanding Multimedia Devices.
- Installing Input and Multimedia Devices.
- Troubleshooting Input and Multimedia Devices.
- Troubleshooting I/O Ports.
- Maintaining Input Devices.

## **Chapter 9 : Video Displays & Graphic Cards**

- Installing a Video Card.
- Display Types.
- Installing a Monitor .
- Troubleshooting Displays and Video Cards.
- Preventative Maintenance for Displays.

## **Chapter 10 : Laptops and Portable Devices**

- Fundamental Features of Laptops and Portable Devices.
- Configuring Power Management.
- Applications for Portable and Laptop Hardware.
- Safe Removal of Laptop-Specific Hardware.
- Portable and Laptop Diagnostics.
- Preventative Maintenance for Laptops & Portable Devices.

## **Chapter 11 : Security**

- Security Fundamentals.
- Securing Wireless Networks.
- Data and Physical Security.
- Access Control Purposes and Principles.
- Installing, Configuring & Troubleshooting Security Features.

## **Chapter 12: Printers & Storage Devices**

- Printing Fundamentals.
- Printer and Scanner Control.
- Print Processes.
- Printer Installation.
- Interface Types.
- Optimizing Printer Performance.
- Installing and Configuring Printer Upgrades.
- Printer Troubleshooting Tools and Techniques.
- Floppy Disk Drives.
- Hard Disk Drives.
- CD and DVD Optical Drives.
- Removable Storage.
- Flash Memory and Card Readers.
- USB Flash Memory Drives.
- External Hard Disks.

## **Chapter 13: Networking**

- Network Models.
- Internet Connectivity Technologies.
- Network Protocols.
- TCP/IP Applications and Technologies.
- Network Topologies.
- Network Types.
- Cable and Connector Types.
- Installing Network Interface Cards.
- Configuring Network Interface Cards.
- Switches and Hubs.
- Beyond LANs—Repeaters, Bridges, and Routers.

- Networking Configuration.
- Setting Up Shared Resources.
- Setting Up the Network Client.
- Using Shared Resource
- Browser Installation and Configuration
- Using Network Command-Line Tools.
- Network and Internet Troubleshooting .

## **Chapter 14 : Norton Ghost .**

- Create exact hard drive duplicates.
- Restore Files Quickly.
- Schedule automatic Backup.