

## A+ (PC Hardware Technician)

### Program Summary

This instructor-led program with a combination of lecture and hands-on laboratory exercises is designed for the novice without prior computer experience. Students will be introduced to computer hardware concepts and learn to build a Personal Computer (PC) from the ground up. Software concepts will be delivered via training on the newest versions of Microsoft Windows. The primary goal of this course is to give students a basic understanding of every aspect of hardware and software relating to the PC. However, the final portion of this course will introduce the student to basic networking concepts and network implementation using Microsoft Windows operating systems – a must for any individual planning to enter the IT field.

- Certification program
- 96 Contact Hours, 6 Credit Hours, 12 Weeks

Course No.	Course Name	Quarter Credit Hours	Clock Hours
IPC100	PC I	6	96
<b>Total</b>		<b>6</b>	<b>96</b>

### Prerequisites

There are no prerequisites required to attend this course.

### Type of Document Received Upon Graduation

Upon successful completion of all program requirements, each student will be awarded a Certificate of Completion.

### Certification Tests

All certification exams are scored on a pass/fail basis. Depending on the specific exam, a correct response to 75% - 80% of the questions will be required to achieve a passing score. Students are encouraged to take exams immediately following completion of the corresponding course.

### Career Development

Students who successfully complete this program will be prepared for entry to midlevel professional opportunities in the IT field with emphasis on client workstation or desktop hardware, software and operating system support. Although titles may vary by hiring organizations, students with these credentials are qualified to meet the requirements of positions such as Desktop Support Technician, PC Technician, Helpdesk Support, Computer Hardware Engineer or similar designations.

This program also aligns with the following career opportunities classified by US Department of Labor under the Standard Occupational Classification (SOC) system.

- 15-1151 Computer User Support Specialist
- 17-2061 Computer Hardware Engineers

**Recommended Next Course**

Candidates wishing to further their education are recommended to consider the Microsoft certifications in client/server technologies as the next step toward becoming a well rounded IT professional.

## **A+ Program Details**

### **COURSE IPC100**

Title: PC Hardware and Operating System

Exam: CompTIA Exams 220-801 and 220-802

#### **Course Description**

This instructor-led course with a combination of lecture and hands-on laboratory exercises is designed to introduce the students to computer hardware concepts and the skills required to build a Personal Computer (PC) from the ground up. In addition, students will learn software concepts with the newest versions of Microsoft Windows. The primary goal of this course is to give students a basic understanding of every aspect of hardware and software relating to the PC. However, the final portion of this course will introduce the student to basic networking concepts and network implementation using Microsoft Windows operating systems.

#### **Course Objectives**

This course will cover the following subjects:

- Skills in Managing and Troubleshooting PCs
- Operational Procedures
- Perform Preventive Maintenance
- Diagnostics and Troubleshooting
- Professionalism and Communication
- Safety and Tools
- Personal Computer Components
- System Unit Components
- Personal Computer Connection Methods
- Tools of the Trade
- Display Devices
- Input Devices
- Adapter Cards
- Multimedia Devices
- Storage Devices
- Power Supplies
- Memory
- CPUs
- System Boards
- BIOS
- Personal Computer Operating Systems
- Windows User Interface Components
- Windows File System Management
- Windows System Management Tools
- Install, Upgrade, and Optimize Microsoft Windows
- Operating System Utilities
- Maintain and Troubleshoot Microsoft Windows
- Recover Microsoft Windows
- Command Line Interface
- Network Concepts and Communications
- Network Connectivity
- Wireless Networks
- Create Network Connections
- Internet Technologies

- Virtualization
- Install and Configure Web Browser
- Maintain and Troubleshoot Network Connections
- Laptop and Portable Computing Device Components
- Printer and Scanner Technologies
- Printer and Scanner Components
- Printer and Scanner Processes
- Install and Configure Printers and Scanners
- Maintain and Troubleshoot Printers and Scanners
- Security Fundamentals
- Security Protection Measures
- Data and Physical Security
- Wireless Security
- Social Engineering
- Install and Configure Security Measures
- Maintain and Troubleshoot Security Measures
- Virtualization