

COURSE DESCRIPTION

PC Hardware and Software is divided into two sections. The first section provides fundamental knowledge that conforms with the **CompTIA A+ Exams (based on the 2009 objectives)**, while the second section explores advanced concepts in greater depth and provides opportunities for practical application.

Chapters 1-10 cover the following skills and competencies for the **CompTIA A+ Essentials Exam (220-701)**.

- A. Core competencies in the latest hardware and software technologies
- B. Information security skills
- C. Safety and environmental issues
- D. Soft skills for career development

Chapters 11-16 cover the following skills and competencies for the **CompTIA A+ Practical Application Exam (220-702)**.

- A. Advanced troubleshooting skills
- B. Advanced installation of computers, peripheral devices, networks and security components

STUDENTS MUST PASS BOTH EXAMS TO EARN THE COMPTIA A+ CERTIFICATIONS.



COURSE OBJECTIVES

1. Safety instruction to protect the student from accident and injury, to protect the environment from contamination, protect equipment from damage and protect data from loss
2. Define information technology (IT) and describe the components of personal computer
3. Perform a step by step assembly of a desktop computer tower
4. Explain the purpose of preventive maintenance and identify the elements of the troubleshooting process
5. Explain, install, and navigate an operating system; upgrade components based on customer needs and perform preventive maintenance and troubleshooting
6. Describe, remove, and replace select components of a laptop; upgrade components based on customer needs and perform preventive maintenance and troubleshooting
7. Describe, remove, and replace select components of a printer/scanner; perform preventive maintenance and troubleshooting
8. Describe and install a network; upgrade components based on customer needs and perform preventive maintenance and troubleshooting
9. Perform advanced installation of a desktop computer tower; select components based on customer needs and perform preventive maintenance and troubleshooting
10. Upgrade security components based on customer needs and perform preventive maintenance and troubleshooting
11. Learn good communication skills and professional behavior while working with customers



COURSE OUTLINE:



- Chapter 1 – Introduction to the Personal computer
- Chapter 2 – Safe Lab Procedure and Tool Use
- Chapter 3 – Computer Assembly – Step by Step
- Chapter 4 – Basics of Preventive Maintenance and Troubleshooting
- Chapter 5 – Fundamental Operating Systems
- Chapter 6 – Fundamental Laptops & Portable Devices
- Chapter 7 – Fundamental Printers and Scanners
- Chapter 8 – Fundamental Networks
- Chapter 9 – Fundamental Security
- Chapter 10 – Communication Skills
- Chapter 11 – Advanced Personal Computers
- Chapter 12 – Advanced Operating Systems
- Chapter 13 – Advanced Laptops and Portable Devices
- Chapter 14 – Advanced Printer and Scanners
- Chapter 15 – Advanced Networks
- Chapter 16 – Advanced Security

