

COMPETENCY PROFILE

PC HARDWARE FUNDAMENTALS

BTC: IT 112 – A+ Certification - Hardware (153 hrs/10 credits)

WCC: CIS 206 – Computer Support I (5 credits)



Study

Course is designed to provide introduction to computer components and their interrelationships. will provide hands-on experience in installation, upgrading, removal, configuration and troubleshooting of hardware and software.

DOMAIN 1.0: INSTALLATION, CONFIGURATION AND UPGRADING (35% of exam)

- Identify names & purpose of system components.
- Replace, install, configure field replaceable modules and peripheral devices.
- Identify procedures for installing & configuring SCSI & IDE devices.
- Identify typical IRQs, DMAs, I/O addresses, common peripheral ports, cabling.

DOMAIN 2.0: DIAGNOSING AND TROUBLESHOOTING (21% of exam)

- Recognize common problems associated with each component and their symptoms, and identify steps to isolate and troubleshoot the problems.
- Identify basic troubleshooting procedures and tools, and how to elicit problem symptoms from customers.

DOMAIN 3.0: PREVENTIVE MAINTENANCE (5% of exam)

- Identify various types of preventive maintenance measures, products and procedures and when and how to use them.
- Identify various safety and environmental protection measures and procedures and when and how to use them.

DOMAIN 4.0: MOTHERBOARD/PROCESSORS/MEMORY (11% of exam)

- Identify different motherboards, CPUs and types of RAM.
- Identify purpose of CMOS memory, what it contains and how and when to change its parameters.

DOMAIN 5.0: PRINTERS (9% of exam)


- Identify printer technologies to recognize common printer problems and techniques used to resolve them.

DOMAIN 6.0: BASIC NETWORKING (19% of exam)

- Identify basic networking concepts to common types of network media.
 - Identify common technologies available for establishing internet connectivity and their characteristics.
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Assignments/Assessments: PC Hardware Fundamentals Practical Exam – to earn college credit, students must achieve 75% (C) or better on the exam and earn a B or better in the high school course.

College Textbook Reference:

 A+ Guide to Hardware: Managing, Maintaining and Troubleshooting; Jean Andrews; Course Technology/Thomson Learning; 2002

 A+ ExamCram 2; James G. Jones and Craig Landes; Que Certification; 2003