



## Enhanced Network Solutions Group

Systems Integration • Learning Solutions • CIO Consulting  
Managed Outsourcing • Healthcare Solutions • Security Solutions

7224 Engle Road - Fort Wayne, IN 46804 - Phone: (260) 432-1364 - Fax: (260) 432.3168

# CompTIA A+ Certification: A Comprehensive Approach for All 2009 Exam Objectives

APLUS Rev 05.10

## 5 days

### Description

Students will install, upgrade, repair, configure, optimize, troubleshoot, and perform preventative maintenance on basic personal computer hardware and operating systems.

### Audience

The target student is anyone with basic computer user skills who is interested in obtaining a job as an IT professional or PC technician. In addition, this course will help prepare students to achieve the CompTIA A+ certification.

### Prerequisites

- *End-user skills with Windows®-based personal computers, including the ability to: browse and search for information on the Internet; start up, shut down, and log on to a computer and network; run programs; and move, copy, delete, and rename files in Windows Explorer*
- *Basic knowledge of computing concepts, including the difference between hardware and software; the functions of software components, such as the operating system, applications, and file systems; and the function of a computer network*
- *Introduction to Personal Computers: Using Windows XP or Introduction to Personal Computers: Using Windows Vista™ or the equivalent skills and knowledge*
- *Windows XP: Basic or Microsoft Windows Vista™: Basic (recommended)*

### Course Objectives

Upon successful completion of this course, students will be able to:

- *Identify the components of standard desktop personal computers*
- *Identify fundamental components and functions of personal computer operating systems*
- *Identify best practices followed by professional personal computer technicians*
- *Install and configure computer components*
- *Install and configure system components*
- *Maintain and troubleshoot peripheral components*
- *Troubleshoot system components*
- *Install and configure operating systems*
- *Maintain and troubleshoot installations of Microsoft Windows*
- *Identify network technologies*
- *Install and manage network connections*
- *Support laptops and portable computing devices*
- *Support printers*
- *Identify personal computer security concepts*
- *Support personal computer security*



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### Course Outline

#### **Lesson 1: Personal Computer Components**

Topic 1A: Personal Computer Components

Topic 1B: System Unit Components

Topic 1C: Storage Devices

Topic 1D: Personal Computer Connection Methods

#### **Lesson 2: Operating System Fundamentals**

Topic 2A: Personal Computer Operating Systems

Topic 2B: Windows User Interface Components

Topic 2C: Windows File System Management

Topic 2D: Windows System Management Tools

#### **Lesson 3: PC Technician Professional Best Practices**

Topic 3A: Tools of the Trade

Topic 3B: Electrical Safety

Topic 3C: Environmental Safety and Materials Handling

Topic 3D: Perform Preventative Maintenance

Topic 3E: Diagnostics and Troubleshooting

Topic 3F: Professionalism and Communication

#### **Lesson 4: Installing and Configuring Peripheral Components**

Topic 4A: Install and Configure Display Devices

Topic 4B: Install and Configure Input Devices

Topic 4C: Install and Configure Adapter Cards

Topic 4D: Install and Configure Multimedia Devices

#### **Lesson 5: Installing and Configuring System Components**

Topic 5A: Install and Configure Storage Devices

Topic 5B: Select and Install Power Supplies

Topic 5C: Select and Install Memory

Topic 5D: Select, Install, and Configure CPUs and Cooling System Units

Topic 5E: Install and Configure System Boards

#### **Lesson 6: Maintaining and Troubleshooting Peripheral Components**

Topic 6A: Troubleshoot Display Devices

Topic 6B: Maintain and Troubleshoot Input Devices

Topic 6C: Troubleshoot Adapter Cards

Topic 6D: Troubleshoot Multimedia Devices

#### **Lesson 7: Troubleshooting System Components**

Topic 7A: Troubleshoot Storage Devices

Topic 7B: Troubleshoot Power Supplies

Topic 7C: Troubleshoot Memory

Topic 7D: Troubleshoot CPUs and Cooling Systems

Topic 7E: Troubleshoot System Boards

#### **Lesson 8: Installing and Configuring Operating Systems**

Topic 8A: Install Microsoft Windows

Topic 8B: Upgrade Windows

Topic 8C: Add Devices to Windows

Topic 8D: Optimize Windows



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### ***Lesson 9: Maintaining and Troubleshooting Microsoft Windows***

Topic 9A: Operating System Utilities

Topic 9B: Back Up Microsoft Windows

Topic 9C: Troubleshoot Microsoft Windows

Topic 9D: Recover Microsoft Windows

### ***Lesson 10: Network Technologies***

Topic 10A: Network Concepts

Topic 10B: Network Communications

Topic 10C: Network Connectivity

Topic 10D: Internet Technologies

### ***Lesson 11: Installing and Managing Network Connections***

Topic 11A: Create Network Connections

Topic 11B: Install and Configure Web Browsers

Topic 11C: Maintain and Troubleshoot Network Connections

### ***Lesson 12: Supporting Laptops and Portable Computing Devices***

Topic 12A: Laptop and Portable Computing Device Components

Topic 12B: Install and Configure Laptops and Portable Computing Devices

Topic 12C: Maintain and Troubleshoot Laptops and Portable Computing Devices

### ***Lesson 13: Supporting Printers***

Topic 13A: Printer Technologies

Topic 13B: Printer Components

Topic 13C: Printer Processes

Topic 13D: Install and Configure Printers

Topic 13E: Maintain and Troubleshoot Printers

### ***Lesson 14: Personal Computer Security Concepts***

Topic 14A: Security Fundamentals

Topic 14B: Security Protection Measures

Topic 14C: Data and Physical Security

Topic 14D: Wireless Security

Topic 14E: Social Engineering

### ***Lesson 15: Supporting Personal Computer Security***

Topic 15A: Install and Configure Security Measures

Topic 15B: Maintain and Troubleshoot Security Measures

### ***Appendix A: Mapping Course Content to the CompTIA A+ Essentials 220-701 Exam Objectives***

### ***Appendix B: Mapping Course Content to the CompTIA A+ Practical Application 220-702 Exam Objectives***

### ***Appendix C: CompTIA A+ Acronyms***

### ***Appendix D: A Brief History of Personal Computers***



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