SOUTH CAROLINA
CORRELATION
CURRICULUM FRAMEWORKS

COURSE TITLE: **PC REPAIR**

COURSE NUMBER: **5320, 5321, 5322, 5323**

SUBMISSION TITLE: *PC Maintenance: Preparing for A+ Certification*

PUBLISHER: **EMC/Paradigm Publishing**

A+ CORE HARDWARE

INTENDED OUTCOMES (Number and outcome)	PAGE(S) OR LOCATION(S) WHERE TAUGHT
DOMAIN 1: INSTALLATION, CONFIGURATION, AND UPGRADING 1.1 Identify the names, purpose, and characteristics of system modules. Recognize these modules by sight or definition.	pp. 1-30, 61-101, 109-140, 155-198, 199-229, 231-270, 307-341, 349-384, 461-494, 561-587, 735-787, 927-971
1.2 Identify basic procedures for adding and removing field-replaceable modules for desktop systems. Given a replacement scenario, choose the appropriate sequences.	pp. 61-106, 109-154, 271-305, 385-416, 461-490, 561-587, 589-618, 673-733, 735-787, 837-876
1.3 Identify typical IRQs, DMAs, and I/O addresses and the procedures for altering these settings when installing and configuring devices. Choose the appropriate installation or configuration steps in a given scenario.	pp. 2, 9, 322, 365, 379, 465, 498, 499, 500, 523
1.4 Identify the names, purposes, and performance characteristics of standardized/common peripheral ports, associated cabling, and their connectors. Recognize ports, cabling, and connectors by sight.	pp. 231-270

INTENDED OUTCOMES (Number and outcome)	PAGE(S) OR LOCATION(S) WHERE TAUGHT
1.5 Identify proper procedures for installing and configuring common IDE devices. Choose the appropriate installation or configuration sequences in given scenarios. Recognize the associated cables.	pp. 385-416
1.6 Identify proper procedures for installing and configuring common SCSI devices. Choose the appropriate installation or configuration sequences in given scenarios. Recognize the associated cables.	pp. 385-416
1.7 Identify proper procedures for installing and configuring common peripheral devices. Choose the appropriate installation or configuration sequences in given scenarios.	pp. 231-270, 349-416, 531-559, 561-587, 619-672, 735-787, 927-971
1.8 Identify procedures to optimize PC operations in specific situations. Predict the effects of specific procedures under given scenarios.	pp. 1209-1217, 1233-1234
1.9 Determine the issues that must be considered when upgrading a PC. In a given scenario, determine when and how to upgrade system components.	pp. 1055-1079
DOMAIN 2: DIAGNOSING AND TROUBLESHOOTING 2.1 Recognize common problems associated with each module and their symptoms, and identify steps to isolate and troubleshoot the problems. Given a problem situation, interpret the symptoms and infer the most likely cause.	pp. 33-60, 86-87, 141-144, B, 496-530, 619-672, 877-925, 1123-1162, 1203-1239
2.2 Identify basic troubleshooting procedures and tools and how to elicit problem symptoms from customers. Justify asking particular questions in a given scenario.	pp. 33-60, 86-87, 141-144, 271-305, 496-530, 619-672, 877-925, 1123-1162, 1203-1239

INTENDED OUTCOMES (Number and outcome)	PAGE(S) OR LOCATION(S) WHERE TAUGHT
DOMAIN 3: PC PREVENTIVE MAINTENANCE, SAFETY, AND ENVIRONMENTAL ISSUES	
3.1 Identify the various types of preventive maintenance measures, products, and procedures and when and how to use them.	pp. 33-60
3.2 Identify various safety measures and procedures and when and how to use them.	pp. 33-60
3.3 Identify environmental protection measures and procedures and when and how to use them.	pp. 33-60
DOMAIN 4: MOTHERBOARD/PROCESSORS/MEMORY	
4.1 Distinguish between the popular CPU chips in terms of their basic characteristics.	pp. 155-198
4.2 Identify the types of RAM (Random Access Memory), form factors, and operational characteristics. Determine banking and speed requirements under given scenarios.	pp. 199-229
4.3 Identify the most popular types of motherboards, their components, and their architecture (bus structures).	pp. 109-153
4.4 Identify the purpose of CMOS (Complementary Metal-Oxide Semiconductor) memory, what it contains, and how and when to change its parameters. Given a scenario involving CMOS, choose the appropriate course of action.	pp. 307-341

INTENDED OUTCOMES (Number and outcome)	PAGE(S) OR LOCATION(S) WHERE TAUGHT
DOMAIN 5: PRINTERS 5.1 Identify printer technologies, interfaces, and options/upgrades.	pp. 619-658, 662-672
5.2 Recognize common printer problems and techniques used to resolve them.	pp. 659-672
DOMAIN 6: BASIC NETWORKING 6.1 Identify the common types of network cables, their characteristics, and connectors.	pp. 252-256, 822
6.2 Identify basic networking concepts including how a network works.	pp. 231-270, 798-835, 837-876, 877-925, 927-971
6.3 Identify common technologies available for establishing Internet connectivity and their characteristics.	pp. 837-876, 877-925, 973-1018
A+ OPERATING SYSTEM TECHNOLOGIES	
DOMAIN 1: OPERATING SYSTEM FUNDAMENTALS 1.1 Identify the major desktop components and interfaces and their functions. Differentiate the characteristics of Windows 9x/Me, Windows NT 4.0 Workstation, Windows 2000 Professional, and Windows XP.	pp. 1025-1079, 1123-1162, 1164-1202
1.2 Identify the names, locations, purposes, and contents of major system files.	pp. 199-229, 417-459, 1025-1079, 1123-1162, 1164-1202, 1203-1239
1.3 Demonstrate the ability to use command-line functions and utilities to manage the operating system, including the proper syntax and switches.	pp. 1185-1202

INTENDED OUTCOMES (Number and outcome)	PAGE(S) OR LOCATION(S) WHERE TAUGHT
1.4 Identify basic concepts and procedures for creating, viewing, and managing disks, directories, and files. This includes procedures for changing file attributes and the ramifications of those changes (for example, security issues).	pp. 199-229, 349-384, 417-459, 927-971, 1163-1202, 1203-1239
1.5 Identify the major operating system utilities, their purpose, location, and available switches.	pp. 1025-1079, 1123-1162, 1163-1202
DOMAIN 2: INSTALLATION, CONFIGURATION, AND UPGRADING 2.1 Identify the procedures for installing Windows 9x/Me, Windows NT 4.0 Workstation, Windows 2000 Professional, and Windows XP, and bringing the operating system to a basic operational level.	pp. 417-459, 1025-1079, 1081-1122
2.2 Identify steps to perform an operating system upgrade from Windows 9.x/ME, Windows NT 4.0 Workstation, Windows 2000 Professional, and Windows XP. Given an upgrade scenario, choose the appropriate next steps.	pp. 1025-1079
2.3 Identify the basic system boot sequences and boot methods, including the steps to create an emergency boot disk with utilities installed for Windows 9x/ME, Windows NT 4.0 Workstation, Windows 2000 Professional, and Windows XP.	pp. 1081-1122
2.4 Identify procedures for installing/adding a device, including loading, adding, and configuring device drivers and required software.	pp. 497-530
2.5 Identify procedures necessary to optimize the operating system and major operating system subsystems.	pp. 1203-1241

INTENDED OUTCOMES (Number and outcome)	PAGE(S) OR LOCATION(S) WHERE TAUGHT
DOMAIN 3: DIAGNOSING AND TROUBLESHOOTING 3.1 Recognize and interpret the meaning of common error codes and startup messages from the boot sequence, and identify steps to correct the problems.	pp. 1081-1122, 1203-1241
3.2 Recognize when to use common diagnostic utilities and tools. Given a diagnostic scenario involving one of these utilities or tools, select the appropriate steps needed to resolve the problem.	pp. 497-530, 619-672, 877-925, 1123-1162, 1203-1241
3.3 Recognize common operational and usability problems and determine how to resolve them.	pp. 497-530, 619-672, 877-925, 1123-1162, 1203-1241
DOMAIN 4: NETWORKS 4.1 Identify the networking capabilities of Windows. Given configuration parameters, configure the operating system to connect to a network.	pp. 837-876, 877-925, 973-1018
4.2 Identify the basic Internet protocols and terminologies. Identify procedures for establishing Internet connectivity. In a given scenario, configure the operating system to connect to and use Internet resources.	pp. 837-876, 877-925, 927-971, 973-1018