ALLEN COMMUNITY COLLEGE
COMMON COURSE OUTLINE
CIS 135 COMPUTER REPAIR-CORE HARDWARE

Allen
COMMUNITY COLLEGE

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I. COURSE INFORMATION
   A. Computer Science 135 Computer Repair-Core Hardware
   B. 3 credit hours
   C. Andrews, Shelton and Pierce. *CompTIA A+ Guide to IT Technical Support.* 11th ed. Cengage
   D. Prerequisites: None

II. COURSE DESCRIPTION
   This course is designed to provide hands on skills in the area of computer troubleshooting and repair in accordance with the Comp-TIA A+ certification operating systems objectives.

III. LEARNING OUTCOMES
   A. Mobile Devices
      a. Given a scenario, install and configure laptop hardware and components
      b. Compare and contrast the display components of mobile devices
      c. Given a scenario, set up and configure accessories and ports of mobile devices
      d. Given a scenario, configure basic mobile-device network connectivity and application support
   B. Networking
      a. Compare and contrast Transmission Control Protocol (TCP) and User Datagram Protocol (UDP) ports, protocols, and their purposes
      b. Compare and contrast common networking hardware
      c. Compare and contrast protocols for wireless networking
      d. Summarize services provided by networked hosts
      e. Given a scenario, install and configure basic wired/wireless small office/home office (SOHO) networks
      f. Compare and contrast common network configuration concepts
      g. Compare and contrast Internet connection types, network types, and their features
      h. Given a scenario, use networking tools
   C. Hardware
      a. Explain basic cable types and their connectors, features, and purposes
      b. Given a scenario, install the appropriate RAM
      c. Given a scenario, select and install storage devices
      d. Given a scenario, install and configure motherboards, central processing units (CPUs), and add-on cards
      e. Given a scenario, install or replace the appropriate power supply
      f. Given a scenario, deploy and configure multifunction devices/printers and settings
      g. Given a scenario, install and replace printer consumables
   D. Virtualization and Cloud Computing
      a. Summarize cloud-computing concepts
      b. Summarize aspects of client-side virtualization
   E. Hardware and Network Troubleshooting
      a. Given a scenario, apply the best practice methodology to resolve problems
      b. Given a scenario, troubleshoot problems related to motherboards, RAM, CPU, and power
      c. Given a scenario, troubleshoot and diagnose problems with storage drives and RAID arrays
      d. Given a scenario, troubleshoot video, projector, and display issues
      e. Given a scenario, troubleshoot common issues with mobile devices
      f. Given a scenario, troubleshoot and resolve printer issues
      g. Given a scenario, troubleshoot problems with wired and wireless networks

IV.   **MAJOR CONTENT AREAS**
    A. PC Hardware
    B. Networking
    C. Laptops
    D. Printers
    E. Operational procedures

I.   **ASSIGNMENTS** (may include but are not limited to)
    A. Chapter examinations
    B. Hands-on labs

II.   **EVALUATION METHODS** (may include but are not limited to)
    A. Examinations
    B. Lab participation