CIS 263 Computer Maintenance

I. **CIS 263 Computer Maintenance – 3 Semester Hours**

II. **Course Description**
 This course provides students with hands-on practical experience in installing computer software, operating systems, and trouble-shooting. It provides students with hands-on practical experience in installation and troubleshooting computer hardware. The class will help to prepare participants for the A+ Certification sponsored by Comp TIA.

III. **Prerequisite**
None

IV. **Textbook**
Textbook: IT Essentials PC Hardware and Software Companion Guide, Fifth Edition
Publisher: Cisco Press
Author: Czurda-Page, Kathleen and Laura Kier

V. **Course Objectives**
1. Introduction to Personal Computers
2. Lab Procedures, Tool Use and Computer Assembly
3. Overview of Preventive Maintenance
4. Operating Systems and Networks
5. Laptops, Mobile Devices and Printers
6. Security
7. Advanced Troubleshooting

VI. **Course Outline of Topics**
1. Introduction to Personal Computers
      a. Cases and Power Supplies
      b. Internal PC Components
      c. External Ports and Cables
      d. Input and Output devices
2. Lab Procedures, Tool Use and Computer Assembly
      a. Procedures to protect equipment, data and the environment
      b. Proper use of tools
      c. Installing motherboard
      d. Installing drives, adapter cards and cables
      e. POST and BIOS
3. Overview of Preventive Maintenance
      a. Troubleshooting process steps

4. Operating Systems and Networks
       a. Types of operating systems
       b. Upgrades, installation and custom installation options
       c. Boot sequence and registry files
       d. Directory structure and file attributes
       e. Administrative and System tools
       f. Principles of networking
       g. Identifying networks
       h. Networking concepts and technologies
       i. Physical components of a network
       j. Network Topologies
       h. OSI and TCP/IP data models

5. Laptops, Mobile Devices and Printers
       a. Components of a laptop
       b. Laptop Wireless communication
       c. Laptop hardware and component installation and configuration
       d. Mobile device operating systems
       e. Android and Apple iOS
       f. Network connectivity and email
       g. Mobile synchronization
       h. Common printer features
       i. Types of printers
       j. Configuring and default settings
       k. Sharing printers and print servers

6. Security
       a. Security threats
       b. Security procedures and maintenance

7. Advanced Troubleshooting
       a. Computer components and peripherals
       b. Operating systems
       c. Networks
       d. Laptops
       e. Security

VII. **Evaluation and Assessment**
Evaluation and assessment will be determined by the instructor and specified on the instructor's class syllabus. Grades will be based upon following scale: A = 90 – 100%, B = 80 – 89%, C = 70 – 79%, D = 60 – 69%, and F = below 60%.

VIII. **Attendance**
Students are expected to attend all classes for which they are registered. Students who are unable to attend class regularly, regardless of the reason or circumstance, should withdraw from that class before poor attendance interferes with the student's ability to achieve the objectives required in the course. Withdrawal from class can affect eligibility for federal financial aid.

IX. **Statement on Discrimination/Harassment**
The College and the Alabama State Board of Education are committed to providing both employment and educational environments free of harassment or discrimination related to an individual's race, color, gender, religion, national origin, age, or disability. Such harassment is a violation of State Board of Education policy. Any practice or behavior that constitutes harassment or discrimination will not be tolerated.

X. **Americans with Disabilities**
The Rehabilitation Act of 1973 (Section 504) and the Americans with Disabilities Act of 1990 state that qualified students with disabilities who meet the essential functions and academic requirements are entitled to reasonable accommodations. It is the student's responsibility to provide appropriate disability documentation to the College. The ADA Accommodations Office is in FSC 305 (205-856-7731).