COMPUTER REPAIR & TROUBLESHOOTING I
Course Syllabus

Course Number: INFO-0126
OCAS Code: 8136
Course Length: 120 Hours
Career Cluster: Information Technology
Career Pathway: Information Support and Services, Network Systems
Career Major(s): Network PC Support Specialist

Pre-requisite(s): Business and Computer Tech OR Fundamentals of Technology

Course Description: Students will prepare for positions related to the maintenance of computers and computer-related equipment through hands-on and project-based learning, textbook assignments, and Internet research. The focus of this course is in the hardware area.


Course Objectives: A. Demonstrate Knowledge of Computer Repair and Troubleshooting I

1. Define basic terms, concepts, and functions of system components, including how each component should work during normal operation and during the boot process.
2. Demonstrate the basic procedures for adding and removing field replaceable units for both desktop and portable systems.
3. Identify the following problems for device installation and configuration—IRQs, DMAs, and I/O addresses.
4. Identify common peripheral ports, associated cabling, and their connectors and understand proper procedures for installation and configuration.
5. Apply concepts and procedures relating to BIOS.
6. Demonstrate methods of upgrading equipment.
7. Diagnose, troubleshoot and isolate problems.
8. Provide preventive maintenance procedures.
9. Practice correct procedures for protecting against hazards to people, hardware, the workplace, and the environment.
10. Identify popular CPUs, motherboards, and RAM and their characteristics.
11. Demonstrate knowledge of basic printer concepts, operations, and components.
12. Apply basic networking concepts, including how to swap and configure network cards, and conducting repairs on the network.
13. Demonstrate and apply knowledge of hardware design, operation, and maintenance.
14. Demonstrate knowledge of CPU components.
15. Install computer system (e.g., monitor, keyboard, disk drive, and printer).
16. Perform hardware installation, configuration, and upgrades.

ODCTE Objectives
Teaching Methods: The class will primarily be taught by the lecture and demonstration method and supported by various media materials to address various learning styles. There will be question and answer sessions over material covered in lecture and media presentations. Supervised lab time is provided for students to complete required projects.

Grading Procedures:
1. Students are graded on theory and shop practice and performance.
2. Each course must be passed with seventy (70%) percent or better.
3. Grading scale: A=90-100%, B=80-89%, C=70-79%, D=60-69%, F=50-59%.

Description of Classroom, Laboratories, and Equipment:
Tulsa Technology Center campuses are owned and operated by Tulsa Technology Center School District No. 18. All programs provide students the opportunity to work with professionally certified instructors in modern, well-equipped facilities.

Available Certifications/College Credit: The student may be eligible to take state, national or industry exam after completion of the program. College credit may be issued from Oklahoma State University-Okmulgee or Tulsa Community College. See program counselor for additional information.

College Credit Eligibility: The student must maintain a grade point average of 2.0 or better.