Course Outcome Guide (COG)

Course:	CIS 129 – Microcomputer Hardware II	Credits:	3	Instructor:	TBD
Course Description:	Students learn the functionality of hardware and software components as well as suggested best practices in maintenance and safety issues. The students, through hands-on activities and labs, learn to assemble and configure a computer, install operating systems and software, and troubleshoot hardware and software problems. In addition, this course helps students prepare for the CompTIA A+ certification				

Concepts and Issues	Process Skills	Assessment Tasks	Intended Outcomes		
			Course	General Education or Program	Institutional
Maintenance of computers Upgrading computers Setting up computers Expansion of computers Procedures for installation, troubleshooting and modification of computer systems	Define information technology (IT) and describe the components of a personal computer ● Describe how to protect themselves, equipment, and the environment from accidents, damage, and contamination ● Perform a step-by-step assembly of a desktop computer ● Explain the purpose of preventive maintenance and identify the elements of the troubleshooting process ● Install and navigate an operating system ● Upgrade or replace components of a laptop, printer, or scanner based on customer needs ● Configure and add	• Participation • Case studies • Network Simulations • Individual and group projects • Individual/group projects and presentations • Completion of Chapter Assessments • Final Assessment • Skills-Based Assessment Course Feedback	Students will be able to remove and replace component parts of an x86 microcomputer, and to troubleshoot and repair common problems with these computers.	Assemble the components of a PC and install one or more operating sytems resulting in a functioning PC. Identify major telecommunications media types, including coaxial cable, UTP and fiber optic cable. Design a small or medium sized computer network including media types, end devices and interconnecting devices. Design basic wide area networks and work with a number of WAN encapsulations.	1. Students will demonstrate effective communication skills. 2. Students will use reasoning skills to analyze and solve problems.

	computers to an existing network ● Implement basic physical and software security principles ● Apply good communications skills and professional behavior while working with customers ● Perform preventive maintenance and basic troubleshooting tasks ● Assess customer needs, analyze possible configurations, and provide solutions or recommendations for hardware, operating systems, networking, and security			Perform basic configuration on routers and Ethernet switches. Perform basic tasks expected of a Network Administrator, including management of user accounts, shared resources and network security. Work in a UNIX environment and successfully create and manage files. Create a database, query a database, and ouput reports from a database in a database program. Write a sample program in at least one programming language. Effectively use the Internet for learning and tech support. Have a basic understanding of TCP/IP.	