



CIS 1121

Division: Career and Technical Education

Department: Computer Information Systems

Course: CIS 1121

Title: PC Hardware

Catalog Description:

This course addresses advanced computer maintenance concepts and techniques. Students will examine theoretical concepts that make the world of technology unique. Also, this course will adopt a practical hands-on approach when examining PC development techniques. Along with examining different troubleshooting strategies, this course will explore the advancement of technological development, as well as, timeless problem solving strategies.

General Education Requirements: N/A

Semesters Offered: TBA

Credit/Time Requirement: Credit: 3; Lecture: 3; Lab: 1

Clock/Hour Requirements: 60

Offered for Non-Credit: No

Justification:

This course is recommended by the program advisory committee and is a prerequisite for other CIS courses. This course helps prepare students for further success in the CIS program and job readiness at graduation.

Student Learning Outcomes:

Upon successful completion of this course, students will be able to:

- Describe How Computers Work
- Describe and Demonstrate How Hardware and Software Work Together
- Manage and Troubleshoot Electricity and Power Supplies
- Install, Configure, and Troubleshoot Motherboards
- Manage Memory
- Install and Configure Floppy Drives
- Install and Configure Hard Drives
- Support I/O Devices
- Configure Multimedia Devices and Mass Storage
- Support Modems
- Configure a PC on a Network
- Manage and Maintain Notebooks, Tablet PCs, and PDAs
- Support Printers

- Install and Configure SCSI Devices
- Make Informed Decisions About Purchasing a PC or Building Your Own
- Perform Basic and Intermediate Troubleshooting and Maintenance Tasks

Content:

- How Computers Work
- How Hardware and Software Work Together
- Electricity and Power Supplies
- The Motherboards
- Managing Memory
- Floppy Drives
- Understanding and Installing Hard Drives
- Supporting I/O Devices
- Multimedia Devices and Mass Storage
- Supporting Modems
- PC on a Network
- Notebooks, Tablet PCs, and PDAs
- Supporting Printers
- All About SCSI
- Purchasing a PC or Building Your Own
- Troubleshooting and Maintenance Fundamentals

General Education Outcomes:

5) Apply a cultural and historical awareness to a variety of phenomena.

Students will be aware of the changing nature of the computer field and how it impacts use of dated software with newer and older hardware. An awareness of the history and development of computers is a must for professional preparation.

Key Performance Indicators:

In class:

Student grades will be based on a combination of lab exercises (5-25%), quizzes (5-25%), tests (10-50%), and a final exam or project (20-50%).

Following class:

Post evaluation will be measured through success in subsequent classes where students are expected to be familiar with the general workings of personal computer hardware. Students scores on the CompTIA A+ Service Technician Certification Exam will also indicate student success in this course.

Representative Text and/or Supplies:

Andrews, A+ *Guide to Hardware: Managing, Maintaining, and Troubleshooting*, Current Edition, Thomson.

Optimum Class Size: 16

Maximum Class Size: 16

Signatures:

I hereby submit this course syllabus:

Michael Medley, MBA, Instructor

I hereby find this course consistent with the goals and resources of the Computer Information Systems Department:

Michael P. Medley, MBA, Assistant Professor, Chair

I hereby find this course consistent with the goals and resources of the Career and Technical Education Division:

Michael P. Medley, MBA, Assistant Professor, Dean

I have discussed the need for library resources related to this class with the person submitting the syllabus:

Lynn Anderson, MLIS, Technical Services Librarian (Main Campus)

Michelle Olsen, MLS, Campus Librarian (Richfield Campus)