CIS 1121

Division: Career and Technical Education
Department: Information Technology
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: Yes
Prerequisites: N/A

Corequisites: N/A

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:

Course objectives will be accomplished by providing students with learning experiences in the following subject areas:

- 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 understand and discuss the historical aspects of IT development as well as the cultural implications of computer use and development in our society.

Applied Education Outcomes:

1) Students will acquire entry-level skills specific to and appropriate for employment in their chosen field of study.

Students will acquire skills in building and maintaining computer systems. They will also gain skills in t roubleshooting computer hardware issues.

2) Students will become aware of industry specific certification and develop skills sufficient to acquire the same.

Students will become aware of the vendor neutral CompTIA A+ certification and develop skills sufficient to acquire the same.

Key Performance Indicators:

Student Learning Outcomes will be assessed by two or more of the following Key performance Indicators:

- exams
- quizzes
- lab exercises
- success in subsequent courses
- personal familiarity with the general workings of PC hardware
- scores on the CompTIA A+ Service Technician Certification Exam.

Representative Text and/or Supplies:

- Testout LabSim software: A+ Essentials
- Supplemental materials will be supplied that support the hands-on lab activities

Optimum Class Size: 16
Maximum Class Size: 16

Signatures:

I hereby submit this course syllabus:

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Michael P. Medley, MBA, Assistant Professor

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

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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:

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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:

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

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Michelle Olsen, MLS, Campus Librarian (Richfield Campus)