



Course Name: Computer Hardware

Course Number: CST* E141

Credits: 4

Catalog description: An introduction to the Personal Computer (PC) as a system, with emphasis on understanding the roles of both the hardware and the elements that interface the hardware to the user's program. Most common PC elements (motherboard, disk drives, modems and displays) are examined, and their operation under various operating systems explained. Students will study troubleshooting techniques and the isolation of problems into software or hardware faults, incompatibility or viruses.

Prerequisite: None

Corequisite or Parallel:

General Education Competencies Satisfied:

HCC General Education Requirement Designated Competency Attribute Code(s):

None

Additional CSCU General Education Requirements for CSCU Transfer Degree Programs:

None

Embedded Competency(ies):

None

Discipline-Specific Attribute Code(s):

COMP Computer Science Elective

Course objectives:

General Education Goals and Outcomes:

None



Course Specific Objectives:

1. Have a theoretical understanding of PC hardware and accompanying hands-on experience
2. Be able to explain the relationship between the various types of firmware, software and hardware
3. Successfully change or upgrade various hardware elements and be able to identify the consequences of the changes
4. Conduct a troubleshooting sequence and follow it to a logical conclusion, test the conclusion with hardware and software.

Course Content:

1. Motherboard
 - Motherboard Commands
2. System Configuration
3. Disassembly and power
4. Logical troubleshooting
5. Memory
6. Floppies and IDE Devices, Hard Disks
7. Multimedia, review
8. Serial Deices
9. Video
10. Printers
11. Notebooks, Tablet PCs, and PDAs
12. Operating Systems
13. Programming



14. Computer and Network Security

15. Troubleshooting

- Troubleshooting and Viruses

Date Course Created:

Date of Last Revision: 04/03/2017