



WACO, TEXAS

PERSONAL COMPUTER HARDWARE
ITSC 1325
COURSE SYLLABUS

REVISED: 09-10

PERSONAL COMPUTER HARDWARE

ITSC 1325

Course Description:

Studies current personal computer hardware including personal computer assembly and upgrading, setup and configuration, and troubleshooting. The student will assemble/setup and upgrade personal computer systems, and diagnose and isolate faulty components; optimize system performance; and install/connect peripherals. Semester Hours 3 (2 lec/2 lab)

Prerequisites and/or Corequisites:

None

Required Text & Material:

Textbook decision pending.

Course Objectives and/or Competencies:

- A. Course Objectives: This course is designed to introduce the student to what is happening inside of the personal computer in order to install and set up new software, install hardware, diagnose both hardware and software problems, and make decisions about purchasing new hardware.

- B. Course Competencies: Upon successful completion of ITSE 1325 Personal Computer Hardware, the student will understand:
 - 1. How hardware components function together to make a microcomputer work
 - 2. How software interacts with hardware
 - 3. How an operating system and application software interact
 - 4. Practical and easy ways to protect hardware and software
 - 5. What Physical components are on the system board
 - 6. How to select system boards and CPU's for a computer system
 - 7. How to upgrade some components of a system board
 - 8. How data is stored on a floppy drive
 - 9. How to replace or install a disk drive
 - 10. What keyboard types and features are available
 - 11. How monitors differ in quality and performance
 - 12. How a mouse and other pointing devices work
 - 13. What monitors and video cards do and the features they offer

14. How data is stored on a hard drive
15. How to identify the various types of hard drives and understand the advantages of each
16. How to manage a hard drive to get the best performance
17. How to compare different removable drives
18. How to install a hard drive
19. About hard drive diagnostic software
20. About methods of recovering lost data on hard drives
21. About hard drive troubleshooting skills
22. How to protect him/herself, the hardware, and the software while working on the computer
23. What tools are needed to support personal computers
24. The importance of good record-keeping
25. How to take a computer apart and put it back together
26. About peripheral devices and software that can enhance computer systems to make them specialized tools
27. How to resolve resource conflicts
28. How to install a new device on a computer
29. The types of physical memory housed on the system board and expansion boards
30. How memory is used by DOS and Windows 95/98
31. How to manage memory using DOS Windows 3.x/95/98
32. How to upgrade the memory in your computer
33. How electricity is measured
34. How to measure the voltage output of the power supply
35. How to change a power supply
36. How a computer system can be protected from damaging changes in electrical power
37. How to install and resolve problems with applications software
38. About ways to optimize Windows performance
39. About the Windows registry and how to repair a corrupted registry
40. How to use some diagnostic software
41. About Plug-and-Play and how to troubleshoot Plug-and-Play problems
42. About the fundamentals of multimedia technology
43. About the minimum requirements for a multimedia PC
44. About standard and new features of video cards
45. How to support printers
46. About features of some multimedia devices
47. About the basics of how computers communicate with each other
48. About the problems faced by systems communicating over phone lines
49. How to configure a modem using Windows 95/98
50. About the features of different communications software programs and how to use two of the more popular ones(ProCommand PCANYWHERE)
51. About digital communication lines, including ISDN
52. About preventive maintenance and procedures designed to protect systems
53. How to develop a preventive maintenance plan
54. How systems become infected with viruses and other infestations

55. How viruses work, how to protect systems against them, and how to deal with them once they do infect a system
56. How to develop a disaster recovery plan
57. How to stay abreast of new technology

C. Evaluation:

1. Written objective and/or subjective exams
2. Practical laboratory exams
3. Class discussion and participation
4. Homework and class assignments
5. Attitude and work habits

MCC Attendance Policy:

Regular and punctual attendance is expected of all students, and each instructor will maintain a complete record of attendance for the entire length of each course, including online and hybrid courses. Students will be counted absent from class meetings missed, beginning with the first official day of classes. Students, whether present or absent, are responsible for all material presented or assigned for a course and will be held accountable for such materials in the determination of course grades. In the case of online and hybrid courses, attendance will be determined in terms of participation, as described in the course syllabus.

Absence from 25 percent of scheduled lecture and/or laboratory meetings will be taken as evidence that a student does not intend to complete the course, and the student will be withdrawn from the course with a grade of W. The instructor may reinstate the student if satisfied that the student will resume regular attendance and will complete the course. If the student's 25 percent absences are reached after the official drop date, the instructor may assign a W, if the student is passing and requests to be withdrawn. However, if a student who is not passing reaches the 25 percent point after the official drop date, the student will receive an F. In extenuating circumstances, the instructor may assign a W to a student who is not passing.

Each absence will count toward attendance requirements in each course.

Students will be permitted to make up class work and assignments missed due to absences caused by (1) authorized participation in official College functions, (2) personal illness, (3) an illness or a death in the immediate family, or (4) the observance of a religious holy day. Also, the instructor has the prerogative of determining whether a student may make up work missed due to absences for other reasons. It is the student's responsibility to inform the instructor of the reason for an absence and to do so in a timely fashion.

Student Absences on Religious Holy Days

McLennan Community College shall excuse a student from attending classes or other required activities including examinations for the observance of a religious holy day, including travel for that purpose. Students are required to file a written request with each instructor for an excused absence. A student whose absence is excused for this observance may not be penalized for that absence and shall be allowed to take an examination or complete an assignment from which the student is excused within a reasonable time after the absence. Religious holy day means a holy day observed by a religion whose places of worship are exempt from property taxation under the Texas Tax Code. McLennan Community College may not excuse absences for religious holy days which may interfere with patient care.

Note: Students interested in seeing the class attendance policy in its entirety should check the Highlander Guide or the MCC policy manual.

ADA Statement:

In accordance with the requirements of the Americans with Disabilities Act (ADA), and the regulations published by the United States Department of Justice 28 C.F.R. 35.107(a), MCC's designated ADA co-coordinators, Mr. Gene Gooch - Vice President, Finance and Administration and Dr. Santos Martinez – Vice President, Student Services shall be responsible for coordinating the College's efforts to comply with and carry out its responsibilities under ADA. Students with disabilities requiring physical, classroom, or testing accommodations should contact Mr. Marcus Sweatt, Disabilities Specialist, at 299-8122 or msweatt@mclennan.edu.

ITSC 1325 - PC Hardware

Course Competencies	Workplace Competencies															Foundation Skills																				
	Resources				Interpersonal					Information				Systems			Technology			Basic Skills					Thinking Skills						Personal Qualities					
	A	B	C	D	A	B	C	D	E	F	A	B	C	D	A	B	C	A	B	C	A	B	C	D	E	A	B	C	D	E	F	A	B	C	D	E
Explain the operations of a microcomputer's system software and hardware systems																																				
Install computer hardware systems																																				
Diagnose hardware and software system problems																																				
Repair microcomputer hardware and software system problems																																				
Upgrade and maintain microcomputer hardware and system software systems																																				
Advise on purchasing decisions on microcomputer hardware and system software systems																																				