Big Bend
COMMUNITY COLLEGE

MASTER COURSE OUTLINE

Prepared By: Tom Willingham   Date: October 2018

COURSE TITLE
Intro to Computer Hardware

GENERAL COURSE INFORMATION

Dept.: CS	Course Num: 104	(Formerly:)
CIP Code: 11.0901	Intent Code: 21	Program Code: 527
Credits: 3		

Total Contact Hrs Per Qtr.: 44

Lecture Hrs: 22	Lab Hrs: 22	Other Hrs:

Distribution Designation: General Elective (GE)

COURSE DESCRIPTION (as it will appear in the catalog)
This course covers basic concepts of computing hardware and addresses the impact of hardware design on applications and systems software. Students will learn how computers work and be able to replace parts and upgrade components. Students completing CS 104 and CS 105 will have the knowledge and skills necessary for CompTIA A+ Certification exam preparation.

PREREQUISITES
None

TEXTBOOK GUIDELINES
Textbook to be determined by CS Faculty. (Example: *Mike Meyers' CompTIA A+ Guide to Managing and Troubleshooting PC's* by Meyers*; LabSim A+ Essentials (Exam #220-701) and LabSim A+ Practical Application (Exam #220-702)*)

COURSE LEARNING OUTCOMES
Upon successful completion of the course, students should be able to demonstrate the following knowledge or skills:

1. Discuss basic computer theory, terminology, history and operation.
2. Identify the basic components of a computer.
3. Replace or upgrade motherboards.
4. Replace or upgrade memory modules.
5. Replace or upgrade video boards.
6. Replace or upgrade central processing units.
7. Install and configure optical drives.
8. Install or replace and configure hard drives.
9. Install and configure expansion cards and peripherals.
10. Install CD, DVD, or other drives.
11. Cable hardware components together.
12. Identify and describe commonly used computer ports.
13. Assemble a computer from parts available.
14. Create and use a boot utilities disk.
15. Load and configure Windows and other operating systems.
16. Safely clean and maintain a computer.

INSTITUTIONAL OUTCOMES

COURSE CONTENT OUTLINE
1. The importance of skill in managing and troubleshooting computers
2. Safety and tools
3. How computers work
4. Understanding Microsoft Windows and other operating systems
5. Microprocessor CPU and memory
6. RAM
7. BIOS and CMOS
8. Expansion bus structure and function
9. Motherboards
10. Power supplies
11. Hard drive technologies
12. Hard drive partitioning and formatting
13. Removable media (drives, flash memory, and optical drives)
14. Troubleshooting

DEPARTMENTAL GUIDELINES *(optional)*
CS 104 and CS 105 are linked courses. Students will be automatically enrolled in both courses. Course instruction in CS 104 and CS 105 prepares students for the CompTIA certification exam.

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DIVISION CHAIR APPROVAL   **DATE**