

## **HIBBING COMMUNITY COLLEGE COURSE OUTLINE**

**COURSE NUMBER & TITLE:** MCT1543: A+Hardware

**CREDITS:** 3 (1 Lec /2 Lab)

**PREREQUISITES:** Consent of instructor if taken out of usual sequence.

### **CATALOG DESCRIPTION:**

A+Hardware offers an introduction to the theory, terminology, operation, and troubleshooting of the main sections of an ISA microcomputer. Coverage is background information needed by those intending to take core COMPTIA A+ Exam 220-101.

### **OUTLINE OF MAJOR CONTENT AREAS:**

- I. Analyze PC hardware theory & terms
- II. Build & troubleshoot project elements
- III. Demonstrate & interpret project results
- IV. Analyze PC system configuration & operation
- V. Build & troubleshoot project elements
- VI. Demonstrate & interpret project results
- VII. Analyze main typical PC Peripherals
- VIII. Build & troubleshoot project elements
- IX. Demonstrate & interpret project results

### **COURSE GOALS/OBJECTIVES/OUTCOMES:**

Students will

1. observe safety procedures.
2. describe microcomputer concepts.
3. explain motherboard operations.
4. analyze CPU Memory Input/Output needs.
5. describe RAM/ROM/CACHE concepts.
6. explain IRQ/DMA/PORT terms.
7. troubleshoot BIOS/CMOS operation.
8. operate mice/scanner/keyboard.
9. operate diagnostic programs.
10. verify cold boot operations.
11. troubleshoot BIOS mode operations.
12. analyze hardware application needs.
13. troubleshoot peripheral operations.
14. analyze printer operational needs.
15. describe LAN/WWW concepts.

### **MNTC GOALS AND COMPETENCIES MET:**

N/A

**HCC COMPETENCIES MET:**

Working Productively and Cooperatively  
Communicating Clearly and Effectively

**STUDENT CONTRIBUTIONS:**

The student is expected to prepare for class, attend all lectures and labs, participate in all class activities, and complete everything on time, request assistance if needed.

**STUDENT ASSESSMENT SHALL TAKE PLACE USING INSTRUMENTS  
SELECTED/DEVELOPED BY THE COURSE INSTRUCTOR.**

**SPECIAL INFORMATION: (SPECIAL FEES, DIRECTIVES ON HAZARDOUS  
MATERIALS, ETC.)**

<b>AASC APPROVAL DATE:</b> April 16, 2014
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<b>REVIEW DATE:</b> April 2019
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