

# Dakota County Technical College

## ISTC 1010: Microcomputer Maintenance

### A. COURSE DESCRIPTION

Credits: 3

Lecture Hours/Week: 2

Lab Hours/Week: 1

OJT Hours/Week: \*.\*

Prerequisites: None

Corequisites: None

MnTC Goals: None

This course is designed for the PC novice to learn how to maintain, upgrade, and repair personal computers. Participants will remove and replace motherboards, and various input/output devices. Hard drives maintenance procedures (formatting) and loading operating systems will be covered. Prerequisites: None.

**B. COURSE EFFECTIVE DATES:** 08/20/2007 - Present

**C. OUTLINE OF MAJOR CONTENT AREAS**

#### **D. LEARNING OUTCOMES (General)**

1. compare hard disk interfaces
2. compare microprocessor types
3. compare video display hardware
4. contrast bus slots and I/O (Input/Output) cards
5. define types of hard drives
6. describe preventive maintenance
7. describe tools used to repair PCs
8. diagnose power supply problems
9. differentiate between motherboard architectures
10. disassemble PC (Personal Computer)
11. discuss USB (Universal Serial Bus)
12. discuss error codes
13. discuss hard disk organization
14. discuss hardware and software diagnostic tools
15. discuss optimizing the system
16. discuss password security
17. discuss sound card applications
18. discuss system configuration
19. discuss the use of backup devices
20. explain CD-ROM (Compact disk - read only memory) technology
21. explain hard disk maintenance procedures
22. explain keyboard operations
23. explain memory layout
24. explain mouse operation
25. explain serial communications
26. format a hard drive
27. identify major components
28. identify media types
29. install operating system
30. isolate problems
31. observe safety procedures
32. partition hard drives
33. remove/replace CD-ROM
34. remove/replace floppy drive
35. remove/replace graphics card
36. remove/replace hard drive
37. remove/replace memory
38. remove/replace mother board
39. remove/replace power supply
40. using power-on-self-test

#### **E. Minnesota Transfer Curriculum Goal Area(s) and Competencies**

None

**F. LEARNER OUTCOMES ASSESSMENT**

As noted on course syllabus

**G. SPECIAL INFORMATION**

None noted