SAULT COLLEGE OF APPLIED ARTS AND TECHNOLOGY

SAULT STE. MARIE, ON

COURSE OUTLINE

COURSE TITLE: **COMPUTER MAINTENANCE SYSTEMS**

CODE NO.: **CET685** SEMESTER: **N/A**

PROGRAM: **ELECTRICAL MAINTENANCE TECHNICIAN
(COMPUTER LITERACY)**

AUTHOR: **ED SOWKA**

DATE: **AUGUST 1997** PREVIOUS OUTLINE DATED: **SEPTEMBER 1996**

APPROVED: _K. De Rosario_ _Sept 2/97_
            DEAN   DATE

TOTAL CREDITS: **4**

PREREQUISITE(S): **N/A**

LENGTH OF COURSE: **8 WEEKS @ 3 HOURS PER WEEK**

TOTAL CREDIT HOURS: **24 HOURS**

Course Name:
Computers

I. COURSE DESCRIPTION

This course is designed to provide the student with the necessary skills related to the operation of a personal computer. The student will study Hardware and Software associated with understanding , operating and maintaining a personal computer. The course will centre around the installation and setup of various hardware (CD-ROM, Sound Card, Video Cards, Modems).

II. TOPICS TO BE COVERED:

1. Basic PC Hardware

2. Operating System Overview

3. Hardware Installation and Setup

III. LEARNING OUTCOMES AND ELEMENTS OF PERFORMANCE:

A. Learning Outcomes:

1. Understand and effectively communicate computer terminology and architecture

2. Understand the PC's BIOS setup, CONFIG.SYS and AUTOEXEC.BAT

3. Understand the installation and setup of various hardware.

B. Learning Outcomes with Elements of Performance:

Upon successful completion of this course, the student will demonstrate the ability to:

1. Understand and effectively communicate PC architecture and terminology

Potential elements of the performance:

- Discuss differences of various types of PC's including CPU's, BUS Structure, RAM/ROM and I/O Structure.

- Understand the block diagram of a PC.

- Understand and discuss the various hardware components of a PC including Motherboards, Storage Systems, Video Adaptors, Printers, Power Supplies and I/O Systems.

This section will consist of theory and demonstration. Information will be presented as lecture and instructor handouts. The proposed time frame is 1-2 weeks (3-6 Hours).

2. Understand key elements in a PC's BIOS, AUTOEXEC.BAT and CONFIG.SYS.

Potential elements of the performance:

- Understand the DOS file structure and file types.

- Correctly and efficiently use DOS commands for managing both Hard and Floppy Disks and Hardware components.

- Understand and correctly modify AUTOEXEC.BAT and CONFIG.SYS system files.

This section will consist primarily of hands-on work by the students. Some introductory lecture will be presented. The proposed time frame is 1-2 weeks (3-6 Hours).

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3. Demonstrate proficiency in using DOS and the WINDOWS G.U.I. for hardware installation.

Potential elements of the performance:

- Understand the function of DOS and WINDOWS with respect to hardware installation.

- Understand and correctly modify AUTOEXEC.BAT, CONFIG.SYS, WIN.INI and SYSTEM.INI system files to ensure proper hardware operation and installation.

- Access various tools in the Windows environment for proper hardware upgrades.

This section will consist primarily of hands-on work by the students. Some introductory lecture will be presented. The proposed time frame is 4-6 weeks (12 - 18 Hours).

4. Demonstrate proficiency in the set-up of VT-100 and VT-220 Video Display Terminals.

Potential elements of the performance:

- Correctly configure and troubleshoot VT-100 and VT-220 V.D.T.'s.

This section will be presented by ASI Trainers. The proposed time frame is 1 - 2 weeks (6 - 12 Hours).

IV. REQUIRED STUDENT RESOURCES:

- At least 2 - 1.44MB 3.5" Floppy Disks

- Handouts and supplementary information will be provided by the instructor.

V. METHODS OF EVALUATION:

The following grading system is used at Sault College:

A+ = 90% - 100%   Consistently Outstanding Achievement
A = 80% - 89%   Outstanding Achievement
B = 70% - 79%   Above Average Achievement
C = 55% - 69%   Average Achievement
R = < 55%   Repeat Course
X = Temporary   Used in exceptional circumstances when course work is incomplete. (Eg. Due to Illness etc.)

The final garde will be derived as follows: 50% - Theory test
                                               50% - Practical Assignments and/or Test
                                 TOTAL = 100%

VI. SPECIAL NOTES:

1. Your Instructor reserves the right to modify the course as deemed necessary to meet the needs of the students.

2. Attendance requirements are established by A.S.I.. Attendance will be taken for each class.

VII. PRIOR LEARNING ASSESSMENT:

This section is not applicable to this course.