SAULT COLLEGE OF APPLIED ARTS & TECHNOLOGY

SAULT STE. MARIE, ONTARIO

COURSE OUTLINE

Course Title: INTRODUCTION TO COMPUTER SCIENCE

Code No.: CET 105

Program: COMPUTER ENGINEERING TECHNOLOGY

Semester: ONE

Date: JANUARY, 1987

Author: G. DAVIES

New: _____ Revision: _____

APPROVED: _____   _____
          Chairperson   Date

CET 105

INTRODUCTION TO COMPUTER SCIENCE

OBJECTIVES

GENERAL

The general objectives of this course are to:

1. Introduce the student to the general concepts of the computer field.

2. Develop the student's computer vocabulary.

3. Familiarize the student with the hardware and software that is used in the CET program.

4. Familiarize the student with the overall goals of the CET program, and the means of implementing them.

5. Provide the student with a wide variety of hands-on experience with a variety of computers.

ASSESSMENT

The final mark in the course will be arrived at as follows:

Tests and quizzes	65%
Assignments and labs	25%
Participation and attendance	10%

SPECIFIC OBJECTIVES

THEORY

The theory of the course will follow Sanders. Periodically, usually at the end of a block, tests will be held. Prior to tests, specific requirements for that particular test will be detailed.

BLOCK 1   BACKGROUND

At the end of this block the student shall be able to:

1. Describe the general organization of a computer system and its characteristics and components.

2. Describe the historical development of the computer.

3. Discuss typical applications of the computer.

4. Describe the stages of development of software systems.

5. Discuss the impact of computers on individuals and organizations.

BLOCK 2   SYSTEMS AND SOFTWARE

At the end of this block the student shall be able to:

1. Describe the organization of a CPU and it's general operation.

2. Discuss main memory concepts, and it's development.

3. Discuss the applications of word processing.

4. Discuss systems development techniques.

5. Discuss the characteristics of operating systems.

6. Discuss the types and uses of DBMS software.

7. Discuss MIS concepts.

BLOCK 3   THE SOCIAL IMPACT OF THE COMPUTER

At the end of this block the student shall be able to:

1. Discuss the concept of artificial intelligence.

2. Discuss the good and bad effects that computer technology may have on people and organizations.

3. Discuss future trends in computer technology.

LAB WORK

The lab work in this course is intended to support the theory. The concepts are the central focus, with the development of rigorous skills left to future specialized courses. The labs will cover:

1. OPERATING SYSTEMS

   A comparison of VMS, MSDOS and the SuperPET systems.

2. KEYBOARDING

   A VAX based interactive keyboarding system will be used to develop keyboard skills.

3. LANGUAGES

   A comparison of Cobol, Pascal, APL, Fortran, and Basic will be done on the SuperPET.

4. APPLICATION SOFTWARE

   Wordprocessing and spreadsheet software will be used on the IBM PC.

5. DBMS

   Data base management software will be investigated on the microcomputer and/or the VAX.

6. COMPUTER NETWORKS

   The use of DECnet on the VAX will be investigated.

7. HARDWARE

   The student will be introduced to CET hardware.