SAULT COLLEGE OF APPLIED ARTS & TECHNOLOGY

SAULT STE. MARIE, ONTARIO

COURSE OUTLINE

Course Title: BASIC PROGRAMMING

Code No.: CET 100-3

Program: ELECTRICAL/ELECTRONIC/COMPUTER TECHNICIAN/TECHNOLOGY

Semester: ONE

Date: AUGUST, 1986

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New: _____ Revision: X

APPROVED: A.P. Arozzetto
Chairperson

Date

BASIC PROGRAMMING — Course Name

CET 100-3 — Course Number

PHILOSOPHY/GOALS:

SEE ATTACHED PAGE

METHOD OF ASSESSMENT (GRADING METHOD):

SEE ATTACHED PAGE

TEXTBOOK(S):

BASIC PROGRAMMING CET 100

PHILOSOPHY/GOALS:

This course is an introductory computer programming course for first semester COMPUTER ENGINEERING TECHNOLOGY and ELECTRICAL/ELECTRONIC TECHNOLOGY students. Because it is a first semester course, it is not intended to be a rigorous problem solving course, but rather a course that will introduce the student to the BASIC language, and provide him/her with the necessary skills in using the computer in successive courses. It is intended that the student shall acquire skills in using the VAX 11-780 computer system, in using the DIGITAL COMMAND LANGUAGE (DCL), and in using the EDT editor program. These skills will be immediately useful to the CET students in second semester, and will allow all students to use the PDP 11 computers in the COMPUTER SYSTEMS and COMPUTER TECHNOLOGY COURSES.

METHOD of ASSESSMENT

The student will be assessed in the following manner:

1.Three (3) written tests worth 25% each.

2.Programming assignments worth 15%.

3.Two practical tests worth 5% each demonstrating the following:

a)The ability to use DCL and the BASIC interpreter.

b)The ability to use the EDT editor, compiler, and linker.

BASIC PROGRAMMING

CET 100

COURSE OUTLINE

BLOCK I COMPUTER SYSTEM ORGANIZATION

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

1. Describe typical hardware components of a computer system and their function.2. Describe the typical software components of a computer system such as monitors, translators, editors, and linkers.

3. Discuss the concept of files and describe the method of naming files on the VAX system.

4.Utilize DCL to:*

a) LOG ON and OFF the system.

b) Display a file on the terminal.

c) Delete files.

d) Purge files.

e) Print files.

f) Rename files.

g) Access the BASIC interpreter.

5. Use the basic interpreter to create, modify, test, and save programs.

BLOCK II BASIC PROGRAMMING

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

1. Describe the form and operation of the following BASIC instructions:

a) REM

b) LET

c) INPUT

d) READ , DATA , RESTORE

e) PRINT

f) END

g) IF

h) DECLARE

i) FOR , NEXT

j) GOTO

k) ON GOTO

l) GOSUB

m) ON GOSUB

n) RETURN

o) STOP

p) UNLESS

q) UNTIL

r) WHILE

2. Utilize the BASIC interpreter commands to list, edit, modify, and delete instructions within a program, and to create, recall, save, unsave, append, and rename programs.

3. Analyze problems for computer solutions using tools such as flowcharts, and to create basic programs to implement those solutions.

4. Run , Test, and debug assigned programs.

BLOCK III PROGRAM DEVELOPMENT

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

1. Describe the process of editing, compiling, linking, and running a program, and discuss the difference between BASIC, OBJECT, LISTING, and EXECUTABLE files.

2. Use the EDT editor program to create and modify basic

source programs.

3. Describe the characteristics and capabilities of the EDT editor, and demonstrate an ability to use the available facilities.

4. Describe and be able to use the various compiler options available with the VAX basic compiler.