SAULT COLLEGE OF APPLIED ARTS & TECHNOLOGY

SAULT STE. MARIE, ONTARIO

COURSE OUTLINE

Course Title: COMPUTER PROGRAMMING

Code No.: EDP 105-2

Program: GEOLOGICAL ENGINEERING TECHNICIAN

Semester: FALL

Date: JUNE 1983

Author: JOHN W. MITCHELL

New: _____ Revision: X

APPROVED: _____ 83.09.07
Chairperson Date

Computer Programming — Course Name

EDP 105-2 — Course Number

PHILOSOPHY/GOALS:

This course provides an introduction to the development of modern data processing techniques as they pertain to the technician. The "BASIC" programming language will be taught so that the technician can apply the computer to mathematics and geological applications.

AIMS and OBJECTIVES:

1. Students will understand the purpose of data processing and the computer.

2. Students will understand the purpose and be able to work with the "BASIC" programming language.

3. Students will be introduced to applications of the computer in their course of studies.

4. Students will be given hands-on experience with the computer.

METHOD OF ASSESSMENT:

Student Evaluation:

Term Tests	2@35%	70%
Assignments - labs		15%
Portfolio *- Due Nov. 18		15%
Final Test**		35%

* During the semester you will collect newspaper and magazine articles that deal with computers and computer applications that apply in your study area. Occasionally you will come across articles that you are unable to photocopy. You can enter these in your portfolio with a bibliographic reference. All clippings should give the name of the periodical and the date: e.g. Globe and Mail, 1983-03-15.

Each article must have a typed covering page which contains two paragraphs. The contents of the two paragraphs are as follows:

1. First paragraph - a brief outline of the major points of the article.

2. Second paragraph - a brief comment on the effects (that the article mentions) computers will have on your future job.

** The final test will cover the semesters work and can be written only if:

1. You pass the semester and wish to improve your grade.

2. You missed/failed one of the term tests, provided you have completed your lab assignments and portifolio satisfactory.

GRADING:

A	85% to 100%	(outstanding achievement)
B	70% to 84%	(consistently above average achievement
C	55% to 69%	(satisfactory achievement)
R	0 to 54%	(course must be repeated)

TESTBOOK(S):

BASIC Made Easy: A Guide to Programming Microcomputers and Minicomputers, Don Cassel - Richard Swanson.

TOPIC OUTLINE

WEEK	TOPIC OUTLINE	REFERENCES
1	Introduction to the course. Assign computer numbers.	
2	Introdcution to Data Processing: - manual/electronic - data cycle.	Notes
3	Introduction to the Computer: - computer components - problem solving.	Chapter 1
4	Flowcharting: - problem solving technique - mathematics applications.	Chapter 2
5	Introduction to BASIC Language: - variables - input/output.	Chapter 3 & 5
6	Continuation of BASIC Language: - arithmetic operations - applications to mathematics.	Chapter 4
7	Continuation of BASIC Language: - applications of input/output and arithmetic operations combined. - program testing.	Chapters 3, 4 & 5 Chapter 7
	TEST #1	
8	Completion of Assignments.	
9	Continuation of BASIC Language: - program controls - mathematics applications.	Chapter 6
10	Geological applications for #9	Chapter 6

TOPIC OUTLINE

WEEK	TOPIC OUTLINE	REFERENCES
11	Continuation of BASIC Language: - subscripts - arrays - applications in mathematics.	Chapter 8
12	Geological applications for #11	Chapter 8
13	Continuation of BASIC Language: - report formatting.	Chapter 5
14	Final lab project	
15	TEST #2	
16	Introduction to Microcomputers: - outline of use.	Notes
17	FINAL TEST	