

SAULT COLLEGE OF APPLIED ARTS & TECHNOLOGY  
SAULT STE. MARIE, ONTARIO

COURSE OUTLINE

Course Title: MATHEMATICS

Code No.: MTH 122-.4

Program: COMPUTEF/ PROGRAMMER

Semester: TWO

Date: JANUARY 1989

Author: J. GLOWACKI

New:

Revision:

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APPROVED: V/K—^ W w U—  
Chairperson

Date W z/z/f€

CALENDAR DESCRIPTION

**MATHEMATICS**

**MTH 122-4**

**COURSE NAME**

**COURSE NUMBER**

**PHILOSOPHY/GOALS :**

This course presents the mathematics needed in computer programming. Concepts taught will also assist in other computer courses. Emphasis is placed on how to interpret a problem and to develop a solution algorithm. The computer will be used to obtain output for specified problems.

**METHOD OF ASSESSMENT (GRADING METHOD);**

Periodic tests and daily assignments based on material in course outline will be given during the semester. A final rewrite test at the end of the semester will be given at the discretion of the instructor.

The final mark will be based on four unit tests, each representing 25% of the final mark.

GRADING:                   A+ = 90--100  
                                  A  = 80--89%  
                                  B  = 65--79%  
                                  C  = 55--64%  
                                  R  =  0--54%

A passing grade will be based on a minimum grading of 55%. Students obtaining a grade of 45-54% may be allowed to write a rewrite test. However, only students who have attended at least 80% of the math classes will be considered for a rewrite test.

**TEXTBOOK(S) :**

Kay, Christine B., MATHEMATICS FOR COMPUTER PROGRAMMERS,

**MATHEMATICS**  
**MTH 122-4**

**COURSE OUTLINE**

| <b>TOPIC NO.</b> | <b>PERIODS</b> | <b>TOPIC DESCRIPTION</b>  | <b>REFERENCE</b> |
|------------------|----------------|---|------------------|
|                  |                | BINARY SYSTEMS<br>- number base concepts<br>- binary, octal and hexadecimal   | Pg. 246-292      |
|                  | 11             | NUMBER SYSTEMS<br>- sets and Venn diagrams<br>- integer and real number sets<br>- format arithmetic                       | Pg. 1-52         |
|                  | 10             | ALGORITHMS<br>- input, process and output<br>- repeating steps and decisions  | Pg. 53-79        |
|                  | 12             | ALGEBRAIC APPLICATIONS FOR<br>PROGRAMMING<br>- order of operations<br>- inequalities<br>- exponents<br>- equation solving | Pg. 96-136       |
|                  | 10             | ADVANCED ALGEBRA CONCEPTS<br>- arithmetic and geometric<br>sequences<br>- matrices  | Pg. 202-245      |
|                  |                | MATHEMATICAL LOGIC  | Pg. 304-321      |