SAULT COLLEGE OF APPLIED ARTS & TECHNOLOGY

SAULT STE. MARIE, ONTARIO

COURSE OUTLINE

Course Title:	MATHEMATICS
Code No	MTH 551-4
Program:	ELECTRICAL/ELECTRONIC TECHNOLOGY/COMPUTER ENGINEERIN
Semester:	III
Date:	JUNE, 1986
Author	J, REAL

New: Revision:

APPROVED: Clrairperson Date ^ 7 /^

MATHEMATICS **MTH 55 1-4**

COURSE NAME COURSE NUMBER

PHILOSOPHY/GOALS:

When the student has successfully completed this course he/she will have demonstrated an acceptable understanding of the course material as listed elsewhere.

The student should then be able to apply this knowledge in his/her studies of other courses in the program where there are applications of these mathematical concepts.

Upon graduation, the student should be able to develop a good command of this subject matter through additional practice.

METHOD OF ASSESSMENT (GRADING METHOD):

The student will be assessed by written tests only. There will be periodic topic tests at times mutually agreed upon (usually) by students and instructor. A letter grade will be assigned for the student's progress report based upon a weighted average of the student's best results-

See also the Mathematics department*s annual publication "To The Mathematics Student" which is presented to the students early in each academic year.

TEXTBOOK(S):

Technical Mathematics with Calculus - Calter

TOPIC NO.	PERIODS	TOPIC DESCRIPTION	ASSIGNMENT	REFERENCE
	10	Analytic Geometry - (Conic Sections)		Ch. 21
		Circle	Ex. 21-1	
		Parabola	21-2	
		Ellipse	21-3	
		Hyperbola	21-4	
	18	Deratives of Algebraic Functions -		Ch. 22
		Limits	Ex. 22-1	
		The derivative - average and instantaneous rate of change.	22-2	
		Delta method		
		Rules for derivatives	22-3	
		Chain rule	22-4	
		Product and Quotient rule	22-5	
		Implicit relations	22-6	
		Higher order derivatives	22-7	
		Graphical Applications of Derivatives -		Ch. 23
		Tangents and Normals	Ex. 23-1	
		Maximum and Minimum points	23-2	
		Inflection points	23-3	
		Newton's Method of solving eqns-	23-4	
		Curve sketching	23-5	
		More Applications of Derivatives -		Ch. 24
		Rate of Change	Ex 24-1	
		Motion of a point (velocity and acceleration)	24-2	
		Related rates	24-3	
		Maximum-minimum applications	24-4	
		Differentials (approximate change, error)	24-5	