

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

COURSE OUTLINE

Course Title: MATHEMATICS
Code Ko MTH 37 0-4
Program: MECHANICAL TECHNOLOGY (YEAR 3)
Semeste V
Date JUNE, 1989
Author: J. REAL

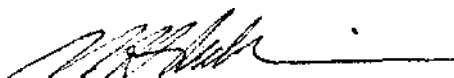
New:

Revision:

X

APPROVED:

Chalrpensori



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MATHEMATICS

MTH 37

COURSE NAME

COURSE NUMBER

PHILOSOPHY/GOALS:

In this course the study of calculus continues. The topics covered are: Methods of Integration, Partial Derivatives, Double Integration and First Order Differential Equations.

METHOD OF ASSESSMENT (GRADING METHOD)

Grades:

Grades reported on your transcript are based on a weighted average of test scores/ on the following basis:

85 - 100%	A+
75 - 84%	A
65 - 74%	B
55 - 64%	C
0 - 54%	R or X

The method of calculating a weighted average is described in your student hand-book.

All tests are scheduled in advance. Hence attendance is mandatory. Unexcused absence from a test will result in a mark of zero for that test- If a student is prevented from writing a test by illness, the student must phone the instructor before the time of the test and leave a message for the instructor, at his extension, stating the reason for absence. Upon return to classes, the student must see the instructor immediately to arrange a time and place for a make-up test. The student must have a doctor's certificate or a note from the college nurse.

** There will be no rewrites (make-up tests) or supplemental exams during the semester or at the end of the semester.

TEXTBOOK:

"Technical Calculus with Analytic Geometry" - A- J. Washington
Fourth Edition

MTH 370-4

TOPIC NO,	NO. OF PERIODS	TOPIC DESCRIPTION	ASSIGNMENTS	REFEREK
	15	Methods of Integration		Ch. 27
		Review integration of trigonometric, exponential, logarithmic, and inverse functions.		
		Integration by parts	Ex. 1	
		Integration by substitution	Ex. 2	
		Trigonometric substitutions	Ex. 3	
		Partial fractions	Ex. 4,5	
		Integration by use of tables	Ex. 6	
		Review	Ex. b	
	17	Differential Equations (First Order)		Ch. 29
		Solutions of differential equations	Ex. 1	
		Separation of variables	Ex. 2	
		Integrable combinations	Ex. 3	
		Linear first order D.E.	Ex. 4	handout)
		Applications (word problems)	Ex. 5(&	
	18	Second Order Differential Equations		Ch. 29
		Linear D.E. of higher order		
		Homogeneous equations with constant coefficients	Ex. 6,7	
		Auxiliary eqns. with repeated or complex roots	Ex. 8	
		Non-homogeneous equations	Ex. 9	
		Applications - Vibration Problems	Ex. 10	
		Review exercise	Ex. 13	