SAULT COLLEGE OF APPLIED ARTS & TECHNOLOGY

SAULT STE. MARIE, ONTARIO

COURSE OUTLINE

Course Title: TECHNOLOGICAL MATHEMATICS

Code No.: MTH 386-3

Program: MECHANICAL TECHNOLOGY (YEAR 3)

Semester: VI

Date JULYr 1987

Author J. REAL

New   Revision:

APPROVED   ^ — ^

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MATHEMATICS   MTH 386-3...MECHANICAL

COURSE NAME   COURSE NUMBER

PHILOSOPHY/GOALS:

This is the last mathematics course taken by Mechanical Technology
students before graduating. Second Order Differential Equations, the
final topic in Calculus, is followed by an introduction to the
mathematics of Statistics.

METHOD OF ASSESSMENT (GRADING METHOD):

GRADES:

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

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

The method of calculating a weighted average is described in youBt
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 (949-2050) 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.

NTH386-3

MECHANICAL TECHNOLOGY MATHEMATICS

TOPIC NO.	PERIODS	TOPIC DESCRIPTION	ASSIGNMENTS	REFERENCI
	18	Second Order <u>Differential Equations</u> -		Ch. 15
		Homogeneous form. D-operator, auxiliary equations - three types of roots.	Ex. 1-3	
		Non-homogeneous equations.	4	
		Applications. Harmonic motion,	5	
		other work problems.	Hand-out	
	24	<u>Statistics</u> -		Ch. 12 Hand-ou
		Descriptive statistics. Frequency distributions, mean, median, mode, quantities, standard deviation, variance, standardized variable.	1	
		Probability theory. Conditional probability, independent and dependent events, mutually exclusive events, permutations, combinations, probability distributions.		
		Inferential statistics. Binomial distributions, normal distributions, sampling theory, estimation theory with confidence intervals.		