

# SAULT COLLEGE OF APPLIED ARTS & TECHNOLOGY

SAULT STE. MARIE, ONTARIO

COURSE OUTLINE

Course Title	MATHEMATICS
Code No.:	MTH 38g-3
Program:	MECHANICAL TECHNOLOGY (YEAR 3)
Semester	VI
Date	OCTOBER, 1985
Author	J. REAL

New:

MARINE ....

Revision:

485 Date

APPROVED: ,...•

~~Chaifrperson

Χ

#### MTH 3ate-3...MECHANICAL

#### MATHEMATICS

#### COURSE NUMBER

## COURSE NAME

#### 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 c other courses in the program where these are applications of these mathemati concepts.

Upon graduation, the student should be able to develop a good command of thi 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 instruct A letter grade will be assigned for the student's progress report based upon weighted average of the student's test results.

See also the Mathematic's departments annual publication "To The Mathematica Student" which is presented to the students early in each academic year.

#### TEXTBOOK(S);

TECHNICAL CALCULUS WITH ANALYTIC GEOMETRY; Washington.

### MTH385-3

## MECHANICAL TECHNOLOGY MATHEMATICS

TOPIC NO	PERIODS	TOPIC DESCRIPTION	REFERENCE
15 5 20	15	Differential Equations (Second Order)	
		Direct integration, homogeneous equations with constant coefficients, non-homogeneous equations, substi- tution to reduce order of D. E. applications	Washingto Ch. 14 Douglass Zeldin Ch. 1
	5	Power Series	
	Binomial series, MacLaurin series Taylor series, applications for computations, integration	Washingtc Ch. 12	
	Statistics		
		a) <u>Descriptive Statistics;</u> Organization of data, frequency distributions mean, median, mode, quantities, standard deviation, variance, standardized variable	Schaums, Ch. 2,3,4
	b) Probability Theory: Conditional probability, inde pendent and dependent events, mutually exclusive events, permutations, combinations, probability distributions	Schaums Ch. 6	
		c) <u>Inferential Statistics</u> : <u>Binomial distribution</u> , normal (Gaussion) distribution, sampling theory, estimation theory with confidence intervals, descision theory and tests of hypotheses	Schaums Ch. 7,8,9