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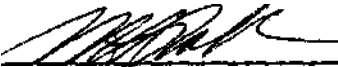
SAULT COLLEGE OF APPLIED ARTS & TECHNOLOGY
SAULT STE. MARIE, ONTARIO

COURSE OUTLINE

Course Title MATHEMATICS
Code No.: MTH 385
Program: MECHANICAL TECHNOLOGY (YEAR 3)
Semester: VI
Date: JULY 1983
Author: J- REAL

New: Revision

APPROVED:


Chairperson

A[^]., /9y[^]
Date

MATHEMATICS
Course Name

MTH 385
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 students test results.

See also the Mathematics Department annual publication "TO THE MATHEMATICS STUDENT" which is presented to the students early in each academic year.

TEXTBOOK(S):

TECHNICAL CALCULUS WITH ANALYTIC GEOMETRY; Washington

MECHANICAL TECHNOLOGY MATHEMATICS

<u>Topic No.</u>	<u>Periods</u>	<u>Topic Description</u>	<u>References</u>
1	15	<u>Differential Equations (Second Order)</u> Direct integration, homogeneous equations with constant coefficients, non-homogeneous equations, substitution to reduce order of D.E. applications <u>Power Series</u> Binomial series, MacLaurin series, Taylor series, applications for computations, integration	Washington Ch. 14 Douglass and Zeldin Ch. 1 Washington Ch. 12
	20	Statistics (a) <u>Descriptive Statistics</u> : Organization of data, frequency distributions mean, median, mode, quantities, standard deviation, variance, standardized variable (b) <u>Probability Theory</u> : Conditional probability, independent and dependent events, mutually exclusive events, permutations, combinations, probability distributions (c) <u>Inferential Statistics</u> : Binomial distribution, normal (Gaussian) distribution, sampling theory, estimation theory with confidence intervals, decision theory and tests of hypotheses	Schaums, Ch.2,3,4 Schaums Ch.6 Schaums Ch.7,8,9,10