

SAULT COLLEGE OF APPLIED ARTS S TECHNOLOGY

SAULT STE. MARIE, ONTARIO

COURSE OUTLINE

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

New: Revision XX

APPROVED

Chairperson'

Date^

MATHEMATICS
Course Name

MTH 385-3
Course Number

PHILSOPHY/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 test results.

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

TEXTBOOK(S):

CALCULUS FOR ENGINEERING TECHNOLOGY; W. R, Blakeley

ELECTRICAL AND ELECTRONIC TECHNOLOGY MATHEMATICS

<u>Topic No.</u>	<u>Periods</u>	<u>Topic Description</u>	<u>Reference</u>
1	20	<u>Statistics</u> a) <u>Descriptive Statistics</u> Organization of data, frequency distributions, mean, median, mode, quantiles 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 test of hypothesis	Schaums- Ch.2,3,4 Schaums Ch.6 Schaums Ch.7,8,9, 10
	10	<u>Differential Equations (Second Order)</u> Direct integration, homogeneous and non-homogeneous equations, RLC circuits, Laplace transforms (optional) <u>Power Series</u> Binomial and exponential series, MacLaurin series, Taylor series, applications to integration, Fourier series, analysis of continuous wave forms	Blakeley Blakeley Ch.15,19

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