# SAULT COLLEGE OF APPLIED ARTS & TECHNOLOGY

SAULT STE. MARIE, ONTARIO

# COURSE OUTLINE

Course Title	MATHEMATICS
Code No	MTH 385-3
Program	ELECTRICAL TECHNOLOGY (YEAR 3)
Semester	VI
	OCTOBER, 1985
Date:	J. REAL
Author:	

New

Revision

APPROVED:

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Chairperson

## MATHEMATICS

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#### COURSE NAME

#### 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 studie other courses in the program where these are applications of these mathere concepts.

Upon graduation, the student should be able to develop a good command of subject matter through additional practice.

#### METHOD OF ASSESSMENT (GRADING METHOD):

The student will be assessed by written tests only. There will be perifl topic tests at times mutually agreed upon (usually) by students and insS A letter grade will be assigned for the student's progress report based u weighted average of the student's test results.

See also the Mathematic's departments annual publication "To The Mathemat 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

TOPIC NO. PERIODS TOPIC DESCRIPTION

- 20 Statistics ..
  - a) Descriptive Statistics 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) Inferential Statistics Binomial distribution« normal (Gaussian) distribution, sampling theory, estimation theory with confidence intervals, descision theory and test of hypothesis
- 10 Differential Equations (Second Order)

Direct integration, homogeneous and non-homogeneous equations, RLC circuits, Laplace transforms (optional)

9 Power Series

Binomial and exponential series, MacLaurin series, Taylor series, applications to integration, Fourier series, analysis of continuous wave forms

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