

SAULT COLLEGE OF APPLIED ARTS & TECHNOLOGY

SAULT STE. MARIE, ONTARIO

COURSE OUTLINE

Course Title MATHEMATICS
Code No. : MTH 577
Program: ELECTRICAL/ELECTRONIC TECHNOLOGY; COMPUTER ENGINEERING
Semester: IV
Date: JULY, 1983
Author: J. REAL

New:

Revision:

APPROVED:



Chairperson'

Date /

MATHEMATICS
Course Name

MTH 577
" Course Number

PHILQSOPHY/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/ELECTRONIC TECHNOLOGY; COMPUTER ENGINEERING MATHEMATICS MTH-577

<u>Topic No.</u>	<u>Periods</u>	<u>Topic Description</u>	<u>References</u>
1	16	<u>Integration</u> Integration of power function by rule Electrical problems Area under curve Definite integral Area under curve using definite integral Volume of revolution Mean and Root mean square values	Ch. 7,8
2	17	<u>Trigonometric Functions</u> Review graphs and identities Derivative of trig, functions Integration of trig, functions Applications to problems Mean and root mean square values	Ch. 10 p. 146-155
3	15	<u>Exponential and Logarithmic Functions</u> Review rules for logarithmic exponents Derivative of exponential function Differentiation of log function Integration of exponential function Integration looking to log function	Ch. 11 p. 155-162
4	11	<u>Hyperbolic and Inverse Functions</u> Definition of hyperbolic functions Hyperbolic function identities Inverse functions and graphs Derivative of hyperbolic functions Derivative of inverse functions Integration of hyperbolic functions Integration of expressions leading to inverse functions	Ch. 12 p. 162-171
5	5	<u>Methods of Integration</u> Substitution methods Improper algebraic fractions Partial fractions	Ch, 13 p. 237-251

