SAULT COLLEGE OF APPLIED ARTS S TECHNOLOGY

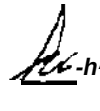
SAULT STE. MARIE, ONTARIO

COURSE OUTLINE

Course Title	MATHEMATICS
Code No.	MTH 367-3
Program	ELECTRICAL/ELECTRONIC TECHNOLOGY; COMPUTER TECHNOLOG
Semester	
Date	JUNE, 1986
Author	J. REAL

New Revision:

APPROVED  -Chairperson

^  z/K.

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MATHEMATICS MTH 367-3

COURSE NAME 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 student's test results.

See also the Mathematics Department's 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

TOPIC NO.	PERIODS	TOPIC DESCRIPTION	ASSIGNMENTS	REFERENCES
1	15	Methods of Integration -		Ch. 13
		Algebraic substitution	pg. 240	
		Partial fractions, improper fractions	246 251	
		Substitutions for radicals	254	
		Trigonometric functions using identities	257	
		Integration by parts	266	
		Use of integration tables	261	
2	15	First Order Differential Equations -		Ch. 16
		Direct integration and intuitive methods	319	
		Superposition method	325	
		Separation of variables	332	
		Linear equation. Exact and integrating factor	339	
		Homogeneous equations	342	
		Applications - word problems	Handout	
3	15	Second Order Differential Equations -		Ch. 17
		Direct integration and intuitive methods	350	
		General second order equation using auxiliary equations - three types of roots	359	
		Superposition method	363	
		Electrical circuit applications	368	
		Applications - word problems	Handout	