SAULT COLLEGE OF APPLIED ARTS & TECHNOLOGY

SAULT STE. MARIE, ONTARIO

COURSE OUTLINE

Course Title: MATHEMATICS

Code No MTH 367-4

Program: ELECTRICAL/ELECTRONIC TECHNOLOGY; COMPUTER TECHNOLOGY

Semester:

Date: JUNE 1989

Author J. REAL

New   Revision: X

APPROVED:
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MATHEMATICS   MTH 367-4

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);

Grades:

Grades reported on your transcript are based on a weighted average of tes
scores, on the following basis:

85 - 100% A+
75 - 84% A
65 - 74% B
55 - 64% C
 0 - 54% R or X
The method of calculating a weighted average is described in your student
hand-book.

All tests are scheduled in advance. Hence attendance is mandatory.
Unexcused absence from a test will result in a mark of zero for that test
If a student is prevented from writing a test by illness, the student mus
phone the instructor (759-6774) before the time of the test and leave a
message for the instructor, at his extension stating the reason for
absence. Upon return to classes, the student must see the instructor
immediately to arrange a time and place for a make-up test. The student
must have a doctor's certificate or a note from the college nurse.

There will be no rewrites (make-up tests) or supplemental exams during th
semester or at the end of the semester.

TEXTBOOK:

TECHNICAL CALCULUS WITH ANALYTIC GEOMETRY-A.J. Washington-4th Edition.

MTH 367-4

TOPIC NO.	NO. OF PERIODS	TOPIC DESCRIPTION	ASSIGNMENTS	REFERENC
	15	**Methods of Integration**		Ch. 27
		Review integration of trigonometric exponential, logarithmic, and inverse functions		
		Integration by parts	330	
		Algebraic substitutions	335	
		Trigonometric substitutions	339	
		Partial fractions	343,349	
		Use of integration tables	353	
		Laplace Transforms-		Ch, 30
		Finding transform by definition, table of transforms (partial fractions)	p. 539	
		Solving differential equations	p. 542	
		Review exercise	p. 543	
	15	First Order Differential Equations		Ch. 29
		Solutions of differential equations	p.480	
		Separation of Variables	p.484	
		Integrable combinations	p.487	
		Linear equations. Exact and integrating factor	p.490	
		Applications	p.496	
	15	Second Order Differential Equation		Ch. 29
		Linear equations - homogeneous	p.505	
		Repeated and complex roots of auxiliary equation	p.510	
		Non-homogeneous equations	p.514	
		Applications RLC Circuits	p.521	

TOPIC NO,	NO- OF PERIODS	TOPIC DESCRIPTION	ASSIGNMENTS	REFEREN
5	12	<u>Power Series-</u>		Ch. 2
		Maclaurin series	p. 452	
		Applications of Maclaurin series	p. 458, 462	
		Taylor's Series	p. 471	
		Fourier series	p. 474	
		Review exercise	p. 475	