

S^ULT COLLEGE OF i^PLIED i^RTS & TECHNOLOGY
S^ULT STE. Mi^RIE, ONTi^RIO

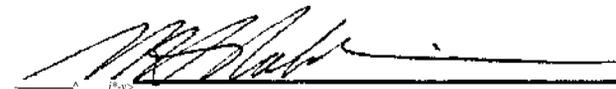
COURSE OUTLINE

Course Title: M^THEM^^TICS
Code No.: MTH 577-4
Program ELECTRICAL/ELECTRONIC TECHNOLOGY/COMPUTER ENGINEERING
Semester: IV
Date: JUNE 1989
Author J. REAL

New;

Revision

i^PPROVED:



Chairperson

Date ^ ^

CALENDAR DESCRIPTION

OLCULUS

MIH 577-4

COURSE NAME

COURSE NUMBER

PHILOSOPHY/GOJALS:

Students studying mathematics at this level are those individuals where a certain degree of originality, a sense of logic and an ability to learn independently are required of them in their major subject area. This course serves to exercise these three requirements and to also give them a theoretical knowledge for their academic subjects.

OBJECTIVES:

The basic objective is for the student to develop an understanding of the methods studied, knowledge of the facts presented and an ability to use them in the solution of problems. For this purpose exercises are assigned. Tests will reflect the sort of work contained in other assignments. The level of competency demanded is the level required to obtain an overall passing average in the tests. The material to be covered is listed on the following page.

METHOD OF ASSESSMENT (GRADING METHOD):

1. Three - four tests per semester.
- 2, Final Grade is a weighted average of these tests.

90 - 100%	=	^+
80 - 89%	=	^
65 - 79%	=	B
55 - 64%	=	C
0 - 54%	=	X OR R

>11 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 must phone the instructor (759-6774) before the time of the test or leave a message for the instructor, stating the reason for absence. Upon return to class, 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.

TEXTBOOK(S)

Washington, Allan, J., Basic Technical Mathematics with Calculus
Fourth edition.

MTH 577-4

TOPIC NUMBER	PERIODS	TOPIC DESCRIPTION	^ASSIGNMENTS	REFERENC
	10	^applications of Integration		Ch. 25
		applications of indefinite integral	Ex. 1	
		i^reas by integration	Ex. 2	
		Volumes by integration	Ex. 3	
	22	Differentiation of Transcendental Functions		Ch. 26
		Derivatives of sine and cosine functions	Ex.	
		Derivatives of other Trigonometric functions	Ex.	
		Inverse Trigonometric Functions	Ex.	
		^Applications	Ex,	
		Derivatives of logarithmic functions	Ex.	
		Derivatives of exponential functions	Ex.	
		Applications	Ex.	
		Review exercise	Ex.	
	21	Methods of Integration		Ch. 27
		General power formula	Ex. 1	
		Basic logarithmic forms	Ex. 2	
		The exponential form	Ex. 3	
		Trigonometric forms	Ex. 4, 5	
		Inverse trigonometric forms	Ex. 6	
		Integration by parts	Ex. 7	
		Integration <i>by</i> trigonometric subst.	Ex. 8	
		Integration by partial fractions	Hand-out	
		Use of integration tables	Ex. 9	