SAULT COLLEGE OF APPLIED ARTS & TECHNOLOGY

SAULT STE. MARIE, ONTARIO

COURSE OUTLINE

Course Title:	MATHEMATICS
Code No.:	MTH 251-4
Program:	ELECTRICAL AND ELECTRONIC TECHNICIANS
Semester:	THREE
Date:	MAY 30, 1983
Author:	K.G. CLARKE

New: Revision:

APPROVED: 

Chairperson Date

CALENDAR DESCRIPTION

ELECTRICAL & ELECRONIC TECHNICIANS

MATHEMATICS	**MTH 251-4**
Course Name	**Course Number**

PHILOSOPHY/GOALS:

When the student has successfully completed this course he will have demonstrated an acceptable ability to pass tests based upon the course contents as listed elsewhere. If, after completing the course, the student takes further courses (or employment) in which he is required to apply this material he should then, through practrice, be able to develop a good command of this subject matter.

METHOD OF ASSESSMENT (GRADING METHOD):

The students will be assessed by test. These tests will include periodic tests based upon blocks of subject matter and may, at the instructor's discretion include unannounced surprise tests on current work and/or a final test on the whole course. A letter grade will be based upon a student's weighted average of his 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 with Analytic Geometry"

- Person

Objectives:

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

Topic Number	Periods	Topic Description	Reference
		Number Systems	Kershaw Ch. 2, 3
		Binary, octal, hexadecimal Change of base, algebra of elements Addition & multiplication tables	
		Boolean Algebra	
		Definition of elements and 2 operators Truth tables, derivation of simple identities: Negation - the not operator Applications to logic and switching circuits	Maivino & Leach Ch. 4
		Algebra Review	
		Special products, factoring, exponents, radicals, and equations	Review Sheets
		Straight Line, Equations & Graphs	
		Review-distance between points, slope of the line, inclination, equation of a line	Person Ch. 1,2,3
		Analytic Geometry-Conic Sections	
		Equations & Graphs of conies (brief coverage)	Person Ch. 4, 5,6,8
		Introduction to Differential Calculus	Person Ch. 9, 10,11,12
		functional notation, limiting value differentiation differentiation by delta method applications	
		Differentiation of Power Functions by Formula	Text Ch. 13,14
		Chain Rule	