# SAULT COLLEGE OF APPLIED ARTS & TECHNOLOGY SAULT STE. MARIE, ONTARIO

# COURSE OUTLINE

MATHEMATICS

Course Title:

MTH 251-4

Code No .

ELECTRICAL AND ELECTRONIC TECHNICIANS

Program:

THREE

Semester:

JUNE 1985

Date:

K. G. CLARKE

Author:

New:

Revision:

APPROVED:

Chairp French

Data.

#### CALENDAR DESCRIPTION

ELECTRICAL & ELECTRONIC 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 cont< as listed elsewhere. If, after completing the course, the student takes further courses (or employment) in which he is required to apply this mater: he should then, through practice, be able to develop a good command of this subject matter.

#### METHOD OF ASSESSMENT (GRADING METHOD):

The students will be assess by tests. These tests will include periodic tes 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 ti whole course. A letter grade will be based upon a student's weighted averac of his test results. See also the mathematics department's annual publicati "To the Mathematics Student" which is presented to students early in each academic year.

## TEXTBOOK(S):

Person: Essentials of Mathematics, 4th Edition

### 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 thes in the solution of problems. For this purpose exercises are assigned. Test will reflect the sort of work contained in the assignments. The level of competency demanded is the level required to obtain an overall passing avera on the tests. The material to be covered is listed on the following page(s)

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TOPIC NO.	PERIODS	TOPIC DESCRIPTION	REFERENC
1	15	Number Systems and Boolean Algebra	
		Binary, octal, hexadecimal Change of base, algebra of elements Addition and multiplication tables Definition of elements and operators Truth tables, derivation of simple identities: Negation - the not operator Applications to logic and switching circuits	printed Sheets and Text Chapter 53
		Straight Line, <u>Equations</u> & Graphs	
		Review distance between points, slope of the line, inclination, equation of a line	Text Chapter
		Analytic Geometry-Conic Sections	
		Equations and graphs of conies (brief coverage)	Text Chapter
	10	Introduction to Differential Calculus	
		Functional notation, limiting value, differentiation by delta method, derivatives of polynomials	Text Chapter