SAULT COLLEGE OF APPLIED ARTS & TECHNOLOGY

SAULT STE. MARIE, ONTARIO

COURSE OUTLINE

Course Title:	MATHEMATICS
Code No.	MTH 228-4
Program:	ELECTRICAL AND ELECTRONICS TECHNICIAN
Semester:	FOUR
Date:	JUNE 1988
Author;	K.G. CLARKE

New: Revision:

APPROVED: _____   _flu.%au.r___3/fr?_
                Chairperson   Date

CALENDAR DESCRIPTION

ELECTRICAL AND ELECTRONICS TECHNICIAN
SEMESTER IV

MATHEMATICS   MTH 277-4

Course Name   Course Number

PHILOSOPHY/GOALS;

Part of the course content is included to enable the technician
graduate to return and take technology mathematics starting at the
semester three level. The remainder is intended to improve the
technicians general knowledge of mathematics by covering certain
calculations which might be encountered in any technical office. The
topics covered are: Trigonometric Identities and Equations, Systems
of Non-Linear Equations, Mathematics of Finance and Mensuration.

METHOD OF ASSESSMENT (GRADING METHOD):

The students will be assessed by tests. These tests will include
periodic tests based upon blocks of the subject matter, and may, at
the instructor's discretion, include unannounced suprise 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 all his test
results. See also the Mathematics department's annual publication
"To the Mathematics Student" which appears as the last two pages of
this course outline.

As in any other subject, the student is preparing to be a
technologist or technician, as well as studying the subject. Hence,
on tests, the student is expected to produce neat, legible, well laid
out solutions which show clearly how the answer was obtained. If
anything less is required, this will be indicated in the test.
Failure to show such solutions may render correct answers worthless.
As happens in the workplace, if anything you put on paper can be
misread, it will be! In addition to loss of marks on individual
questions, up to 25% of the marks available on a test can be
subtracted as a penalty for untidiness. Marks lost in such penalties
can be redeemed by a student willing to put forth the required
effort.

Proper solutions, as described above, should be produced for all your assigned work. Such practice will make it easier for you to produce the required quality of work on tests. If, when you look at a page of your work it makes you feel proud of its appearance, then you are probably on target.

Marks allotted to each question on a test are usually shown. Please enquire if they are not.

ENTRY TO COURSE

The prerequisite for this course is third semester technician or technology mathematics.

If certain conditions have been met, a student who failed third semester technology mathematics by a small margin, may be admitted to this course (fourth semester technician mathematics). The conditions are:

1. Good attendance.

2. All tests written.

3. Course average 45% or better.

If the student then fails the semester IV course, he will have two "R" grades on his transcript and he will have to take a third semester mathematics course in order to continue. If he is successful in his first try at this course, he will receive his grade in this course and a credit in semester III technician mathematics. The "R" grade in semester III technology mathematics will remain on the student's transcript.

TEXTBOOK(S);

Washington: Basic Technical Mathematics with Calculus, 4th Ed. Metric

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 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 level required to obtain an overall passing average on the tests. The material to be covered is listed on the following pages.

MTH 277-4
Electrical and Electronics Technicians
Semester 4

TOPIC N. Qv	NO. OF CLASSES	TOPIC DESCRIPTION	ASSIGNMENTS	REFERENCE!
1	10	Exponential and Logarithmic Functions		Chapter 12

		Definitions
		Graphs of functions
		Properties of functions
		Common and natural logarithms
		  using a calculator
		Exponential and logarithmic
		  equations		

		Tables can be ommitted. Hence, some exercises may need revised instructions.		
2	16	Systems of Non-Linear Equations- Graphical solution. Algebraic solution.		Part of Chapter 13 plus MSS
3	16	Trigonometric Identities and Equations		Chapter 19
4	14	Mensuration		App. C plus MSS
		Distance, Area and Volume. Plane figures.[1] Solids.		