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SAULT COLLEGE OF APPLIED ARTS & TECHNOLOGY

SAULT STE. MARIE, ONTARIO

COURSE OUTLINE

MATHEMATICS

MTH 277-4

ELECTRICAL AND ELECTRONICS TECHNICIAN

FOUR (4 hours/week)

JUNE, 1985

K.G. CLARKE

New:

Revision:

X

CALENDAR DESCRIPTION

ELECTRICAL AND ELECTRONICS TECHNICIAN
MTH277-4

MATHEMATICS

MTH 277-4

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 practice, be able to develop a good command of this subject matter.

METHOD OF ASSESSMENT (GRADING METHOD);

The students will be assessed tests. 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):

Person, "Essentials of Mathematics" Fourth 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 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 NO.	NO. OF CLASSES	TOPIC DESCRIPTION	ASSIGNMENTS	REFERENCES
	10	<u>Applications of Basic Derivatives</u> Distance, velocity and acceleration Maximums and minimums Differentials Electrical applications	Text Ex.48-1 to 48-5	Text, Ch. 48 MSS
	10	<u>Derivatives of Algebraic Functions</u> Chain Rule Product Rule Quotient Rule Implicite Differentiation Related Rates	Text Ex.49-1 to 49-5	Text, Ch. 49
	10	<u>Integration</u> Antiderivatives The indefinite integral The particular integral The definite integral Power rule	Ex. of Ch. 50	Text, Ch. 50
	10	<u>Applications of Integration</u> Areas by integration Volumes by integration Work	Ex. of Ch. 51	Text, Ch. 51
	12	Transcendental Functions Trig Functions Logarithmic Functions Exponential Functions Average Value of Voltage or Current Effective Value of Voltage or Current Other Electrical Applications	Text, Ex. 52-1 to 52-4	Text, Ch. 5: MSS