SAULT COLLEGE OF APPLIED ARTS & TECHNOLOGY

SAULT STE. MARIE, ONTARIO

COURSE OUTLINE
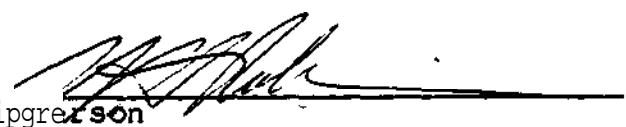
Course Title: MATHEMATICS

Code No.: MTH 120-4

Program: ARCHITECTURAL/CIVIL TECHNICIAN

Semester: ONE

Date: JULY, 1987

Author: K. CLARKE

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New: Revision:

APPROVED: _____   _July 30/87_____
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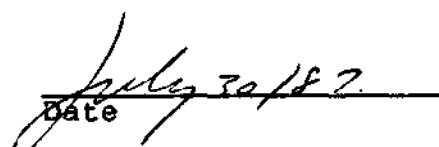
CALENDAR DESCRIPTION

    MATHEMATICS   MTH 120-4 PPE/WRT SEM I

    Course Name   Course Number

PHILOSOPHY/GOALS;

An introduction to technical calculations, including conversion of units, estimating, use of approximate numbers and scientific notation. Following this, there is a review of geometry and mensuration, giving the successful student an ability to deal with plane and solid shapes, including an ability to calculate distances, areas and volumes. The course concludes with a review of secondary school algebra.

METHOD OF ASSESSMENT (GRADING METHOD);

The student's progress will be assessed by periodic written tests. The student's final grade is based upon a weighted average of the test results. A separate handout will include a schedule of tests, a description of the method used to find the weighted average and a number of requirements and suggestions with regard to tests. ATTENDANCE AT ALL TESTS IS REQUIRED. Unexcused absence from a test will result in a mark of zero for that test. If a student is prevented from attending a test by illness or bereavement, the student must phone the instructor before the time of the test and leave a message for the instructor, at his extention, stating the reason for absence. The number to call is 949-2050. Upon return to classes, the student must see the instructor at the end of the first mathematics class attended to arrange a time and place for a make up test. In addition, if the absence is due to illness the student must present a note from the student's doctor or from the College nurse.

Make up tests will not be made available in this course in any other circumstances than those described above.

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

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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, than you are probably on target.

Marks allotted to each question on a test are usually shown. Please
enquire if they are not. The questions on a test do not necessarily
have equal values.

TEXT BOOK(S):

Person. R. "Essentials of Mathematics", (4th Edition), Wiley

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 page.

No. of Periods	Topic Description	Assignments	Referenc
	PRACTICAL CALCULATING	Text Exer. 54-1,	
	Conversion of units, estimating, approximate numbers, scientific notation, calculators	3-3, 16-5	
20	GEOMETRY AND MENSURATION	Text Exer.	Text, Ch. 24-3
	Principles of geometry as required for the following work: Pythagorean theorem Mensuration of plane figures: triangle, rectangle, square parallelogram, trapezoid, circle, regular hexagon Mensuration of solid shapes: cubes, prisms, cylinders, pyramids, cones, spheres, truncated pyramids and cones	24-2 (optional), 25-1, 25-2 26-1, 27-1 28-1, 29-1 30-1, 31-1 and all Ch. Quizzes	
30	ALGEBRA REVIEW ONE	Text Exer.	Text, Ch. 1-10
	Whole numbers, fractions, decimal fractions, percentage square roots, fundamentals, zeros, exponents, roots and radicals, addition, subtraction, multiplication and division of algebraic expressions, elementary equations and their application,	All exercises and quizzes except 3-3	