SAULT COLLEGE OF APPLIED ARTS & TECHNOLOGY

SAULT STE. MARIE, ONTARIO

COURSE OUTLINE

Course Title: MATHEMATICS

Code No.:   MTH 120-4

Program: PULP & PAPER/WATER RESOURCES ENGINEERING TECHNOLOGY

Semester: ONE

Date: JUNE, 1989

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New: Revision: X

APPROVED: _____ Date: f
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MATHEMATICS   MTH 120-4 PPE/WRT SEM I

Course Name   Course Number

PHILOSOPHY/GOALS (calendar description):

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. A student may be
prevented from attending a test by illness or bereavement. 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

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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
or 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.

TEXTBOOK(S):

Person - "Essentials of Mathematics", Fifth 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 ootain an overall passing average on the tests. The material to be
covered is listed on the following page.

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TOPIC NO.	NO. OF PERIODS	TOPIC DESCRIPTION	REFERENCES
		<u>PRACTICAL CALCULATING</u> Conversion of units, estimating, approximate numbers, scientific notation, calculators	Ch. 6, 18 - Section 10 Appendix: p.A-1! to A-24
	20	<u>GEOMETRY AND MENSURATION</u> Principles of geometry. 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, and composite shapes.	Ch. 26-32 Plus MSS
	30	<u>ALGEBRA REVIEW ONE</u> Fundamentals, zeros, exponents, roots and radicals, addition, subtraction, multiplication and division of algebraic expressions, elementary equations and their application Special products and factoring Algebraic fractions Fractional equations Formula manipulation	Ch. 8-11, 12-15