

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

COURSE OUTLINE

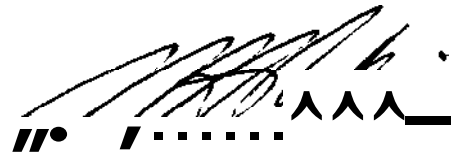
Course Title: MATHEMATICS
Code No.: MTH 120-4
Program: PULP & PAPER/WATER RESOURCES ENGINEERING TECHNOLOGY
Semester: ONE
Date: JULY, 1986
Author: K. CLARKE

New:

Revision:

X

APPROVED:



Chairperson

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Date

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CALENDAR DESCRIPTION

MATHEMATICS

MTH 120-4 PPE/WRT

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 students will be assessed by 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 appears as the last two pages of this course outline.

As in any other subject, the student is preparing to be a 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.

TENTATIVE INSTRUCTION AND TEST SCHEDULE

TOPIC NO.	NO. OF PERIODS	TENTATIVE TEST DATE	TOPIC WEIGHT
1	6	To be	18
2	20	announced	60
3	30	early in the term	90
TOTALS	56		168

Before recording, test results will be adjusted to reflect the value indicated under "Topic Weight". The minimum total required for each letter grade is listed below for your convenience. Please note that in addition to a minimum total mark there are additional requirements to qualify for a grade of I or X.

LETTER GRADE	MINIMUM TOTAL REQ'D
A+	151
A	134
B	109
C	92
I or X	76

The notes on the last two pages, entitled "To the Mathematics Student" are applicable to all mathematics courses at Sault College.

TEXTBOOK(S);

Person - "Essentials of Mathematics", 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.

**MTH 120-4
PULP & PAPER/WATER RESOURCES
SEMESTER I**

TOPIC NO.	NO. OF PERIODS	TOPIC DESCRIPTION	REFERENCES
1	6	<u>PRACTICAL CALCULATING</u> Conversion of units, estimating, approximate numbers, scientific notation, calculators	Ch. 16 - Section 10 Ch. 54 & 32
2	20	GEOMETRY AND MENSURATION 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	Ch. 24-31
3	30	ALGEBRA REVIEW ONE 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 and formula manipulation	Ch. 6-9, 10-13

GRADES

Each Mathematics grade is based upon a weighted average of test scores on the following basis:

90% - 100%	A+
80%-89%	A
65%-79%	B
55%-64%	C
45%-54%	I, X, OR R (See #5 & 6)
0% -44%	R

First semester students who are proceeding into second semester Electrical, Electronic or Mechanical Technician Programs may have a different set of grade requirements which will be defined in class.

The method of calculating your weighted average will be defined by your instructor. Since grades are based upon averages, it follows that good marks in some tests can compensate for a failing mark in another test. If there are extenuating circumstances, an instructor can make an exception and assign an "I" or "X" grade even if the average is below 45%.

TESTS

-While regular tests will normally be scheduled and announced beforehand, there can be an unannounced test on current work at any time. Such tests, at the discretion of the instructor, can be used for up to 30% of the overall mark.

At the discretion of the instructor, there can be a final test which can be used for up to 30% of the overall mark. Anything included in the work of the semester is fair game on such a final test.

ABSENCE FROM CLASS

If you are absent from class, it is your responsibility to find out from another student what work was covered and assigned and to complete this work before the next class. Your absence indicates your acceptance of this responsibility.