

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

COURSE OUTLINE

Course Title: MATHEMATICS

Code No. MTH 113-4

Program: FORESTRY TECHNICIAN

Semester: ONE

Date: JUNE 1989

Author: K. PELEW

New:

Revision:

APPROVED: Chairperson

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CALENDAR DESCRIPTION

MATHEMATICS

MTH 113-4

Course Name

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PHILOSOPHY AND GOALS:

The objectives of this course include the review of the basic operations on algebraic expressions and the solutions to systems of linear equations.

A survey of plane and solid geometry will enable the student to determine areas, volumes and weights for a variety of forms including cylinders, cones and pyramids.

METHOD OF ASSESSMENT (GRADING METHOD):

Periodic tests and daily assignments based on material in the course outline will be given during the semester. A final exam and a make-up test will be at the discretion of the instructor.

The final mark will be based on the results of four unit tests, one from each topic, each representing 25% of the final mark.

GRADING

A+= 90-100%
A = 80-89%
B = 65-79%
C = 55-64%
R = 0-54%

A passing grade will be based on a minimum grading of 55%. Students obtaining grading of 45-55% may be allowed to complete a supplementary examination. However, only students having satisfactory attendance record will be considered for the supplementary examination.

TEXTBOOK(S);

"Essentials of Mathematics"; Fifth Edition, (Person)

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 to reinforce concepts learned, and to show the relevance of these concepts to the student's needs in facilitating computations in the Forestry course. 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.

| <u>TOPIC NO.</u> | <u>PERIODS</u> | <u>TOPIC DESCRIPTION</u> | <u>REFERENCES</u> |
|------------------|----------------|--|--|
| 1 | 7 | <u>Estimations, Dimensional Analysis and Metrication</u> Approximate numbers and rounding off procedures - scientific notation Dimensional analysis for conversion between English and/or SI units The Metric System | Person Ch. 6 pp. 84-102 |
| 2 | 7 | <u>Plane Geometry</u> Definitions and theorems involving triangles and other polygons Definitions and theorems of the circle, practical problems Basic constructions if time permits | Person Ch. 26-29 pp. 499-548 Heywood pp. 415-427 |
| 3 | 11 | <u>Solid Mensuration</u> Mensuration of plane figures Mensuration of solid figures, cubes, cylinders, pyramids, cones, spheres, paraboloids, applications and formulae | Person Ch. 30-33 pp.549-584 |
| 4 | 17 | <u>Review of Elementary Algebra</u> Simplification (bracket removal) Basic Operations (monomial) Special products and factoring Operations involving algebraic expressions and fractions (polynomials) Solutions and properties of linear equations Applied Word Problems Formulae Manipulation | Person Ch. 8-13 pp.123-234 |

TOTAL HOURS 42 (+4 1-HOUR TESTS) = 46 PERIODS)