

SAULT COLLEGE OF APPLIED ARTS S TECHNOLOGY

SAULT STE. MARIE ONTARIO

COURSE QUALIFIER

Course Title? HATHEMATICS

Code No\* t MTH 126-4

ProdrBRi J FORESTRY AND GEOLOGY TECHNICIANS

Semester I TWO

Dstef 1984

Author; K\* PELEW

New:

Revision: ...

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MATHEMATICS

HTH 126-4

Course Name

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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 completion of 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 the sound command of this subject matter\*

METHOD OF ASSESSMENT INFORMATION:

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 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 prescribed to the students early in each academic year\*

TEXTBOOK:

"Essentials of Mathematics" Fourth 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. 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\*

TOPIC NO.	PERIODS	TOPIC DESCRIPTION	REFERENCE
		Rational Equations and Equations with fractions Literal Equations <i>sini</i> formulae Word Problems	<i>P B V S O I T</i> Ch. 3.3
		Systems of Linear Equations Algebraic methods of solution Systems of two or more unknowns Word problems Determinants (optional)	Per <i>son</i> Ch* 14
		Cartesian Coordinate System Rectangular co-ordinate system Graph of a linear equation Graphical solution of two simultaneous equations Slope of a line (optional) Graphs of other functions (optional)	Per <i>erson</i> Ch. 15
		Ratio <i>Bad</i> Proportion Ratio Proportion Variation-direct? inverse? Joint solutions of variational Problems	Per <i>son</i> Ch* 23
		Review of Basic Geometry Plane figures? angles? triangles Right triangles? definition of triangles Ratios Solving right triangles Applications	Per <i>erson</i> Ch * 36? 3B
		Trigonometric Functions Sine Law Cosine Law	Per <i>erson</i> Ch* 44
		Exponents and Radicals Power and roots Laws of exponents ( <i>zerof</i> negative? fractional) Scientific notation (emphasise for Forestry) Square roots Roots and radicals (simplifying) Operations on radicals (omit for Forestry)	Per <i>erson</i> Ch* 16? 17

TOPIC NO*	PERIODS	TOPIC DESCRIPTION	REFERENCE
8	12	Quadratic Equations Incomplete (pure) Quadratics Solutions of the general Quadratic by factoring and the Quadratic formula Applications - word problems Graphical methods Radical equations (optional) Extraneous roots (optional) Imaginary number (optional)	<i>FisvBDn</i> Ch* 18? 21
9	8	Logarithms: Geology The meaning and notation of logarithms Use of table-interpolation Computation by logarithms (products? Quotients? powers and roots) Logarithmic and exponential equation (change of base) Natural logarithms - conversion formula	Person Ch* 33~3'5