

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

COURSE OUTLINE

Course Title MATHEMATICS
Code No MTH i20"4- ^ y[^]/[^]-pc? 'Y
Program: ARCHITECTURAL TECHNICIAN IJJdfT^{^^} f ' ^ S[^] c/1[^] c rS
Semester: II
Date: DECEMBER, 198[^]
Author: K. G. CLARKE

New:

Revision

APPROVED:


Chairperson

^^/Z[^]/f;-/P?-

ARCHITECTURAL TECHNICIAN
MTH t-26-4 ^PCf
MATHEMATICS

CALENDAR DESCRIPTION

MATHEMATICS

KTK"12 6-4

COURSE NAME

COURSE NUMBER

PHILOSOPHY/GOALS :

When the student has successfully completed this course, he will have demonstrated an acceptable ability to pass tests based upon the course content as listed elsewhere. If, after completing 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 a good command of this subject matter.

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 is presented to students early in each academic year.

TEXTBOOK(S):

Washington, "Basic Technical Mathematics with Calculus", Benjamin Cummings

OBJECTIVES:

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 ARCHITECTURAL TECHNICIAN
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 MATHEMATICS

NO.	PERIODS	TOPIC DESCRIPTION	ASSIGNMENTS	REFERENC
"•	23	<u>Algebra Review</u> Functions and Graphs, Solution of Systems of two or three Linear Equations, Special Products and Factoring, Algebraic Fractions, Fractional Equations (Determinants may be omitted)	Text Exercises 2-1 to 2-5, 4-1 to 4-3, 4-5, 4-7, 5-1 to 5-8	Text Ch, 2,4, omitting 4-4 and 4-6
		<u>Quadratic Equations</u> Factoring, Completing the Square, Formula	Text Exercises 6-1 to 6-4 and 13-3	Text Ch- 6 an 13-3
	10	<u>Exponents and Radicals</u> Integral and Fractional Exponents, Simplest Radical Form, Addition, Subtraction, Multiplication and Division of Radicals	Text Exercises 10-1 to 10 7, 13-4	Text Ch, 10 13-4
		<u>Exponential and Logarithmic</u> <u>Functions</u> Definitions, Graphs of Functions, Properties of Logarithms, Logarithms to Base 10 <u>using a calculator</u> , Computations using Logarithms, Natural Logarithms <u>using a</u> <u>calculator</u> , Logarithms to other bases. Exponential and Logarithms, Equations. NOTE: Since each student is expected to have a scientific calculator, the use of tables should be omitted. Also, the use of log trig functions is unnecessary- In Ex, 12-76 the instructions should be modified to reflect the use of calculators.	Text Exercises 12-1 to 12-5, omit 12 12-7, 12-8, parts of 12-10	Text Ch. 12 and 12-8

ARCHITECTURAL TECHNICIAN
MTH 4[^] :[^]7d)'i
MATHEMATICS

<u>NO.</u>	<u>PERIODS</u>	<u>TOPIC DESCRIPTION</u>	<u>ASSIGNMENTS</u>	<u>REFERENC</u>
5		<u>Ratios, Proportions,</u> Variation	Text Exercises 17-1, 17-2, 17-3	Text Ch. 17
12		<u>Review of Basic Trigonometry</u> Angles, Trigonometric Functions, Rt. Triangles, Trig Functions of any Angle, Radian Measure, Sine Law, Cosine Law, Areas, Applications NOTE: Since the student is expected to have a scientific calculator, the use of tables should be omitted, Also, the instructions in exercises should be ammended to avoid the use of loose approximations for (such as 3.14), For areas of triangles additional problems can be used or text exercises can be altered to require areas-	Text Exercises 3-1 to 3-6, 7-1 to 7-5, 8-4, 8-5, 8 #17 on and additional problems	Text Ch, 3, 7 8-4, 8-8