#

SAULT COLLEGE OF APPLIED ARTS & TECHNOLOGY

SAULT STE. MARIE, ONTARIO

COURSE OUTLINE

Course Title: MATHEMATICS (Tt:CVlvj\Cfiu>)

Code No.:   MTH 626-4

Program: AVIATION

Semester: II

Date: DECEMBER, 1983

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New: Revision;   X

APPROVED:

        Chairperson   Date

AVIATION
MTH 626-4
MATHEMATICS

CALENDAR DESCRIPTION

MATHEMATICS   MTH 626-4
COURSE NAME   COURSE NUMBER

PHILOSOPHY/GOALS:

   Students studying mathematics at this level are those individuals where
a certain degree of originality, a sense of logic and an ability to learn
independently are required of them in their major subject area. This course
serves to exercise these three requirements and to also give them a
theoretical knowledge for their academic subjects.

METHOD OF ASSESSMENT (GRADING METHOD):

1,   Three to four tests per semester.

2,   Final Grade is a weighted average of these tests.

3,   A failing grade at the end of the semester can be upgraded by writing a
     two-hour comprehensive examination.

TEXTBOQK(S):

   Technical Calculus with Analytic Geometry by Allan J. Washington

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 other 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(s):

AVIATION
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MATHEMATICS

Topic No,	Periods	Topic Description	Reference
1	9	Application of Integration - Centroid of an area - Centroid of a solid - First Moment of an area - First Moment of a solid - Moment of inertia of an area - Moment of inertia of a solid - Radius of Gyration of a solid - Work done by a variable force - Force due to liquid pressure	
2	11	Derivatives of Trigonometric and Inverse Trigonometric Functions - Review Basic Trig relations - Derivation of Sine and Cosine functions - Derivatives of the other Trig functions - Derivatives of the inverse Trig functions	
3	IZ	Derivatives of the Exponential and Logarithmic Functions - Exponential and Logarithmic functions - Derivative of Logarithmic functions - Derivative of exponential functions	251-260
4	25	Methods of Integration - Power Formula - Basic Logarithmic form - The exponential form - Various Trigonometric forms - Integration by parts - Integration by Trig substitution - Integration by use of Tables	269-301