*Please retain this stub and submit it with your work when requesting services*

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SAULT STE. MARIE, ONTARIO

COURSE OUTLINE

Course Title     MATHEMATICS

Code No.:        MTH 551

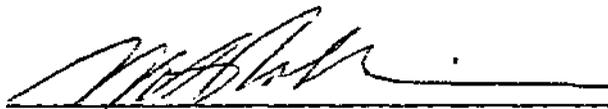Program:         ELECTRICAL/ELECTRONIC TECHNOLOGY; COMPUTER ENGINEERING

Semester:        III

Date:            JULY, 1983

Author:          J. REAL

New;                Revision

APPROVED     _____

             Chairperson                      Dat&-^

MATHEMATICS                                           MTH 551
Course Name                                          Course Number


<u>PHILOSOPHY/GOALS</u>:

When the student has successfully completed this course he/she will have
demonstrated an acceptable understanding of the course material as listed
elsewhere.

The student should then be able to apply this knowledge in his/her studies
of other courses in the program where there are applications of these
mathematical concepts.

Upon graduation, the student should be able to develop a good command of
this subject matter through additional practice.


<u>METHOD OF ASSESSMENT (GRADING METHOD)</u>:

The student will be assessed by written tests only.  There will be periodic
topic tests at times mutually agreed upon (usually) by students and
instructor.  A letter grade will be assigned for the student's test
results.

See also the Mathematic's department annual publication "To the Mathematic
Student" which is presented to the students early in each academic year.


<u>TEXTBOOKS</u>:

Calculus for Engineering Technology;   W.R. Blakeley

ELECTRICAL/ELECTRONIC TECHNOLOGY: COMPUTER ENGINEERING MATHEMATICS

MTH 551


| TOPIC NO. | PERIODS | TOPIC DESCRIPTION | REFERENCE |
|---|---|---|---|
| 1 | 10 | **Number Systems and Boolean Algebra**<br><br>Binary, Octal, Lexadecimal and binary coded decimal systems<br>Conversions<br>Addition, Subtraction, multiplication and division in binary systems<br>And gates. Or Gates and complementing circuits<br>Truth Tables<br>Rules of Boolean Algebra including DeMorgan Theorems<br>Simplifications | Major Subject text |
| 2 | 6 | **Graphs and Analytic Geometry**<br><br>Power functions<br>Straight line<br>Conic sections | Ch. 1,2 |
| 3 | 14 | **Differentiation**<br><br>Del tan notation<br>Derivatives by delta method<br>Derivatives by rule<br>Applications (electrical)<br>Maximum and Minimum<br>Higher Order derivatives<br>Applications of maximum/minimum | Ch. 3,4 |
| 4 | 14 | **Differentials, Implicit Differentiation**<br><br>The differential<br>Implicit Differentiation<br>Product rule | Ch. 5, 6 |