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

COURSE OUTLINE

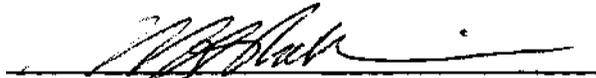
Course Title: APPLIED PHYSICS II
Code No, : _ PHY 105
Program: PULP & PAPER AND WATER RESOURCES
Semester: TWO
Date: FEBRUARY, 1984
Author: G.I. MACINNIS

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New

Revision:

APPROVED


Chairperson

February. 1984
Date

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CALENDAR DESCRIPTION

APPLIED PHYSICS II
COURSE NAME

PHY 105
COURSE NUMBER

PHILOSOPHY/GOALS:

Characteristics and use of some members of the electromagnetic spectrum; the kinetic molecular theory as applied to problems with heat and temperature; proceed from a knowledge of static electricity and magnetism to an awareness of their inter-relation in connection with current flow; introductory study of simple harmonic motion and sound.

METHOD OF ASSESSMENT (GRADING METHOD)

LECTURES ONLY: Minimum of three (3) tests of equal value, attendance will be taken at lectures

85-100% A - Rewrite option for total course is available
70- 79% B - at discretion of instructor to those students
60- 69% C - that have written tests and who have achieved
40% overall-

TEXTBOOK(S):

Introductory Applied Physics, Harris/Hemmerling; 4th Edition, McGraw-Hill, 1980.

TOPIC	PERIODS	<u>DESCRIPTION</u>
	12	<u>Heat and Thermodynamics</u> <ul style="list-style-type: none">- temperature scales- the effects of heat as explained by the kinetic molecular theory- heat and change of state- heat transfer
	20	<u>Electricity and Magnetism</u> <ul style="list-style-type: none">- electrostatics - units, problems and applications- Coulomb's Law- capacitance and dielectrics- D.C. electricity, sources and effects, plus series, parallel and series-parallel circuits- batteries- Kirchoff's Law- capacitance and dielectrics- magnetism and electromagnetism, including magnetic field, field strength, PARA-DIA and FERRO magnetism- hysteresis curve- electromagnetic induction- A.C. electricity - circuits and measurement, generators, capacitance, impedance and inductance, rectifiers and transformer <p>Wave Motion (and Sound)</p> <ul style="list-style-type: none">- Huygen's Principles; types and speeds of waves- reflection refraction- Snell's Law- Interference and Phase relationships- ultra-violet and fluorescence- introduction to quantum physics

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