

CALENDAR DESCRIPTION

APPLIED PHYSICS II

PHY 118-3

COURSE NAME

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.

90	A
80-90 %	A
70-79 %	B
60-69 %	C
0-59 %	R = Repeat of course

Rewrite option for total course is available at discretion of instructor to those students who have written tests and who have achieved 40% overall.

TEXTBOOK(S)

Basic Technical Physics, Tippens, Paul E, , 2nd Edition

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<u>TOPIC</u>	<u>PERIODS</u>	<u>DESCRIPTION</u>
1	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- expansion due to heat- heat of combustion and efficiency
2	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- A.C, electricity - circuits and measurement, generators, capacitance, impedance and inductance, rectifiers and transformer
3	8	<u>WAVE MOTION {AND SOUND}</u> <ul style="list-style-type: none">- Huygen's Principles; types and speeds of waves- reflection, refraction- Snell's Law- interference and phase relationships- sound waves- properties of sound waves- sound proofing- earthquake proofing- electromagnetic waves- properties of electromagnetic waves- basic optics

