M.S.P. Mandal's
VINAYAKRAO PATIL MAHAVIDYALAYA, AIJAPUR
DEPARTMENT OF PHYSICS

COURSE OUTCOME

Degree: B.Sc. PHYSICS (optional)

Course Name: Mechanics, Properties of Matter and sound Code: PHY101
Semester-I

COUT1	Understand the fundamentals of gravitation, Newton's law of gravitation, Compound and Kater's pendulum and their time period calculation
COUT2	Elasticity determination, bending moment, cantilever effective and ineffective case loaded at free end.
COUT3	Apply principles of viscosity with suitable example, determination of viscosity, energy of liquid in motion, Bernoulli's Theorem, practical Applications of Bernoulli's Theorem.
COUT4	Understanding concepts of surface tension, Know the difference of pressure across a curved surface. example Jaeger's method
COUT5	Able to understand the different sources of generating waves and their properties with suitable examples
COUT6	Understand the various production methods of ultrasonic waves, their applications. Basics concepts in acoustics,
COUT7	Enhance the knowledge of acoustical design of auditorium and noise reduction factors.

Course Name: Heat & Thermodynamics Paper-II Code: PHY102

Semester-I

COUT1	Understand the concept of heat transfer, coefficient of thermal conductivity, flow of heat along bar, Methods of radial flow of heat.
COUT2	Enhance knowledge of real gasses and transport phenomena, Van der waals equation, mean free path with temperature and pressure
COUT3	To know the mechanism of thermodynamics in gases, some processes and indicator diagram. Heat engine, Carnot's heat engine with its cycle.
COUT4	Understand the entropy and thermodynamics relations, various laws of thermodynamics

Course Name: Physics Practicals Paper- III Course Code: PHY103

Semester-II

COUT1	To perform experimental determination of acceleration due to gravity by Kater's pendulum.
COUT2	Able to calculate S.T. by Jaeger's method of liquids.
COUT3	Able to measure the oscillations of cantilever.
COUT4	Evaluate the M.I. by bifilar suspension of the given bar
COUT5	Able to determine of coefficient of viscosity of given liquid
COUT6	Calibrate modulus of rigidity of various materials

Course Name: Geometrical and Physical Optics Paper-IV Code: PHY104

Semester-II

COUT1	To understand nature of light using optical instruments, focal points, nodal points, various types of eyepieces functioning
COUT2	To understand phenomenon of interference, various films, Newtons rings by reflected light. Michel son's interferometer, R.P. of optical instruments.
COUT3	To know diffraction phenomenon. Thin films, double slit, gratings, R.P. of optical instruments, R. P. of prism, grating
COUT4	Enable to understand polarization, various theories, Nicol prism, Optical activity, half shade polarimeter, sugar solution.

Course Name: Physics Practicals Paper- V Course Code: PHY105

Semester-II

COUT1	Y by Searl's method to calculate Young's modulus
COUT2	Enable to calculate M.I. of fly wheel
COUT3	Able to calculate thermal conductivity using Lee's disc method
COUT4	To know field along axis of coil
COUT5	I-H curve measurement