



**MANGALORE UNIVERSITY**  
**Department of Physics**  
**MSc Physics**

**PHP 405: PHYSICS PRACTICALS I (General)**

**Course Outcome**

CO1 The student will know to determine efficiency of a GM counter, Study the beta ray attenuation in matter, Determine of energy gap of a semiconductor, Susceptibility by Quincke's method.

CO2 Will able to determine Modes of vibration of a fixed free bar and hence the elastic properties of materials. Temperature dependence of Hall coefficient, Magnetic susceptibility of hydrated copper sulphate. Study the variation of magnetoresistance of a sample with the applied magnetic field.

CO3 Will able to determine strength of an  $\alpha$ -source using SSNTD.

CO4 Able to study the transition temperature of a ferroelectric materials.

CO5 Able to determine the dielectric constant of given materials.

- 1 Characteristics and efficiency of a GM counter.
- 2 Study the beta ray attenuation in matter.
- 3 Determination of energy gap of a semiconductor.
- 4 Susceptibility by Quincke's method.
- 5 Modes of vibration of a fixed free bar
- 6 Temperature dependence of Hall coefficient.
- 7 Magnetic susceptibility of hydrated copper sulfate.
- 8 To study the variation of magnetoresistance of a sample with the applied magnetic field.
- 9 To determine the strength of an  $\alpha$ -source using SSNTD.
- 10 Transition temperature of a ferroelectric material
- 11 Dielectric constant of a given material.

**\* Additional experiments may be included.**