MANGALORE UNIVERSITY

Department of Physics

MSc Physics

PHP 457: PHYSICS GENERAL PRACTICALS IV

Course outcome

CO1 The student will be able to setup experiments and study the interference and diffraction of light.

CO2 They will be able to setup experiments to determine velocity of ultrasonic waves in liquid.

CO3. They will be able to to determine the wavelength of light using interferometric experimental techniques.

CO4 Will be able to setup experiment to determine the ionization potential of given source.

CO5 Would be able to estimate the fundaments constant like Planck's constant using simple experiments.

CO6 Able to setup experiments to study the quantum nature of atoms.

CO7 Able to setup experiments demonstrate the splitting of spectral line in magnetic fields.

1. Study of interference and diffraction using He-Ne Laser
2. Ultrasonic Interferometer
3. Michelson`s Interferometer
4. Constant deviation Spectrometer
5. Quarter wave plate
6. Diffraction Haloes
7. Fresnel's laws of reflection
8. To determine the ionization potential of given source.
9. To determine the value of Planck's constant using photocell/LED.
10. Babinet Compensator
11. Demonstration of energy quantization using the Frank-Hertz Experiment.
12. Study of Zeeman effect: determination of e/m for an electron

Additional experiments may be included