



## Level Four

### Waves & Optics Laboratory

Course Code	Course Name	Credit Hours	Lec	Lab	Tut	Prerequisites	Co-requisites
PHY 282	Waves & Optics Laboratory	2	0	3	0	PHY 101	PHY 240

#### *Syllabus:*

- Investigating Circularly Polarized String Waves in the Experiment Setup after Melde
- Wavelength and Velocity of Sound
- Acoustic Doppler Effect
- Reflection and Refraction of Light
- Laws of Imaging
- Optical Instruments
- Newton's Rings in Transmitted Monochromatic Light
- Interference at a Fresnel's Mirror with He-Ne Laser
- Diffraction at a single slit
- Diffraction at a double slit
- The diffraction grating and Polarization
- The diffraction grating spectrometer
- Rotation of the plane of polarization with sugar solutions

#### *References:*

Special Notes written by Dr. Abdelaziz Sabik