PHY5304 Experimental Physics III

Course Code	PHY5304	Semester	III
Course Title	*Experimental Physics III*		
Credits	4	Type	Core

Course Outcome

Students get training in

1. Modern instrumentation
2. Nuclear detector handling, Data analysis,
3. Soft skill development
4. Scientific paper writing

Course Structure

Experiments:

Nuclear Physics: GM counter, scintillation counter, alpha, and gamma detectors, analysis of nuclear reaction data.
Solid state physics: Hall effect, four probe, band gap measurement, optoelectronic devices, Kerr effect, analysis of X-ray diffraction data. Thin film preparation.
Spectroscopy: Zeeman effect, Laser Raman spectra, constant deviation spectrograph, ESR, NMR, Ellipsometry.

Mini project:
Students shall take up one extended experiment involving writing of report in the form of a manuscript.