

| Course Code | Course Title | L | T | P | C |
|--|---|------------------|------------|------------|-----------------|
| BPHY302P | Physics Lab | 0 | 0 | 2 | 1 |
| Pre-requisite | | Syllabus version | | | |
| | | 1.0 | | | |
| Course Objectives | | | | | |
| 1. To provide an opportunity to the students to do hands-on experiments in different field of Physics. | | | | | |
| Course Outcomes | | | | | |
| 1. Understand the concept of optics. 2. Measure the electrical properties of semiconductors. 3. Analyse the properties of materials. | | | | | |
| Indicative Experiments | | | | | |
| 1. | Wavelength of sodium light using Newton's Rings | | | | |
| 2. | Refractive index of a liquid-hollow prism-spectrometer | | | | |
| 3. | Determination of polarization in sugar solution using polarimeter | | | | |
| 4. | Measurement of Hall voltage using Hall effect setup | | | | |
| 5. | Four probe method – Bandgap determination of semiconductor | | | | |
| 6. | ESR Spectrometer – Lande g factor | | | | |
| 7. | Crystallite size determination using XRD | | | | |
| 8. | Torsional pendulum – Rigidity modulus determination | | | | |
| 9. | Black Body Radiation – Verification of Wien's law | | | | |
| 10. | Verification of Wiedemann Franz law | | | | |
| Total Laboratory Hours | | | | | 30 hours |
| Text Book(s) | | | | | |
| 1. | G.L. Squires, Practical Physics, 2015, 4th Edition, Cambridge University Press. | | | | |
| Reference Books | | | | | |
| 1. | Michael Nelson and Jon M. Ogborn, Advanced level Physics Practicals, 4th Edition, reprinted 1985, Heinemann Educational Publishers. | | | | |
| Mode of assessment: Continuous assessment, Oral examination, FAT | | | | | |
| Recommended by Board of Studies | | | 20-06-2023 | | |
| Approved by Academic Council | | No. 70 | Date | 24-06-2023 | |