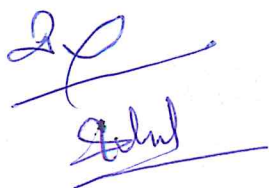


FOUR YEAR UNDERGRADUATE PROGRAM (NEP- 2020)
PROGRAM: BACHELOR IN SCIENCE (2024 – 28)
DISCIPLINE – PHYSICS
SESSION - 2024 – 25

| DSC- 01 to 08 | | DSE- 01 to 12 | | DGE- 01 to 02 | |
|---------------|---|---------------|--|---------------|--|
| Code | Course Title | Code | Course Title | Code | Course Title |
| PHSC- 01 T | Mechanics | PHSE- 01 | Introduction to Statistical Mechanics | PHGE- 01 T | Mechanics |
| PHSC- 01P | Lab Course | | | PHGE- 01 P | Lab Course |
| PHSC- 02 T | Electricity & Magnetism | PHSE- 02 | Mathematical Physics-I | PHGE- 02 T | Electricity & Magnetism |
| PHSC- 02 P | Lab Course | | | PHGE- 02 P | Lab Course |
| PHSC- 03 T | Heat & Thermodynamics | PHSE- 03 | Nuclear Physics | | |
| PHSC- 03 P | Lab Course | | | | |
| PHSC- 04 T | Waves & Optics | PHSE- 04 T | Numerical Methods & C Programming | VAC | |
| PHSC- 04 P | Lab Course | PHSE- 04 P | Lab Course | | |
| PHSC- 05 T | Introduction to Quantum Mechanics | PHSE- 05 | Mathematical Physics-II | PHVAC- 01 | Renewable Energy and Energy Harvesting |
| PHSC- 05 P | Lab Course | | | | |
| PHSC- 06 T | Solid State Physics & Solid State Devices | PHSE- 06 | Classical Electrodynamics & Electromagnetic theory | SEC | |
| PHSC- 06 P | Lab Course | | | | |
| PHSC- 07 | Classical Mechanics | PHSE- 07 T | Digital Electronics | | |
| | | PHSE- 07 P | Lab Course | | |
| PHSC- 08 | Quantum Mechanics | PHSE- 08 T | Operational Amplifier & Its Applications | PHSEC- 01 | Basic Electrical Skill |
| | | PHSE- 08 P | Lab Course | | |
| PHSE- 09 T | Solid State Physics | | | | |
| PHSE- 09 P | Lab Course | | | | |
| PHSE- 10 | Atomic and Molecular Physics | | | | |
| PHSE- 11 | Statistical Mechanics | | | | |
| PHSE- 12 T | Microprocessor | | | | |
| | | PHSE- 12 P | Lab Course | | |

Signature of Convener & Members (CBoS):







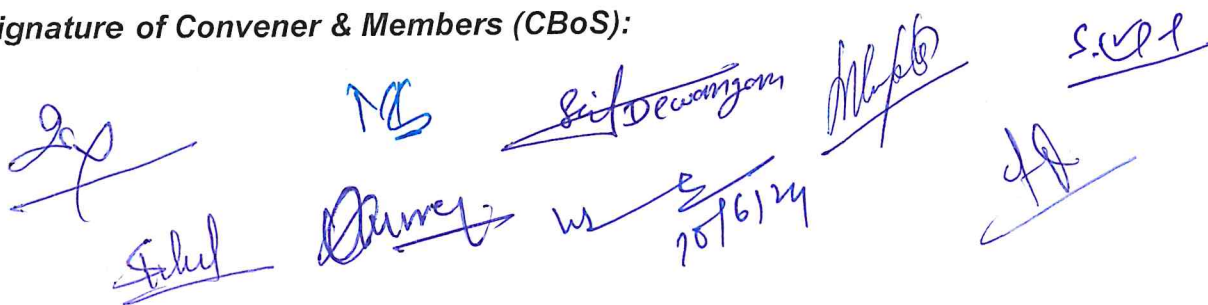


Program Outcomes (PO):

The learning outcomes of the undergraduate degree course in physics are as follows:

- **In-depth disciplinary knowledge:** The student will acquire comprehensive knowledge and understanding of the fundamental concepts, theoretical principles and processes in the main and allied branches of physics.
- **Hands-on/ Laboratory Skills:** Comprehensive hands-on/ laboratory exercises will impart analytical, computational and instrumentation skills. The students will be able to demonstrate mature skills for the collation, evaluation, analysis and presentation of information, ideas, concepts as well as quantitative and/or qualitative data.
- **Role of Physics:** The students will develop awareness and appreciation for the significant role played by physics in current societal and global issues. They will be able to address and contribute to such issues through the skills and knowledge acquired during the programme
- **Communication and Skills:** Various DSCs, DSEs, SECs, and GEs have been designed to enhance student's ability to write methodical, logical and precise reports. The courses will, in addition, guide the student to communicate effectively through presentations, writing laboratory/ project reports and dissertations.
- **Critical and Lateral Thinking:** The programme will develop the ability to apply the underlying concepts and principles of physics and allied fields beyond the classrooms to real life applications, innovation and creativity.
- **Research skills:** The course provides an opportunity to students to hone their research and innovation skills through assignment/internship/dissertation. It will enable the students to demonstrate mature skills in literature survey, information management skills, data analysis and research ethics.

Signature of Convener & Members (CBoS):

The image shows several handwritten signatures in blue ink. From left to right, there are: a signature that appears to be 'S.P.', a signature that appears to be 'M.S.', a signature that appears to be 'S. Dewangan', a signature that appears to be 'M. P. B.', a signature that appears to be 'S. V. P.', and a signature that appears to be 'J. A.'. Below the 'S. Dewangan' signature, there is a date '25/6/24'.