

**MSC PHYSICS PROGRAMME**  
**SCHEME OF LEARNING AND EVALUATION**  
**(For the students admitted in the academic year 2025 – 2026 & onwards)**  
**Outcome Based Curriculum Framework with CBCS**

Course Code	Course Title	Course Category	Course Type	Part Type	Lecture Hours	Tutorial Hours	Practical Hours	Course Credits	Max CA Marks	Max CE Marks	Total Marks
<b>Semester - I</b>											
25PHP101	Classical Mechanics	Core	Theory	3	5	0	0	4	25	75	100
25PHP102	Quantum Mechanics – I	Core	Theory	3	5	0	0	4	25	75	100
25PHP103	Integrated Electronics	Core	Theory	3	5	0	0	4	25	75	100
25PHP104	Solid State Physics	Core	Theory	3	5	0	0	4	25	75	100
<b>Semester - II</b>											
25PHP209	Group Theory and Molecular Spectroscopy	Core	Theory	3	4	0	0	0	0	0	0
25PHP210	Practical I: General Physics [Skill Based]	Core	Practical	3	0	0	5	0	0	0	0
25PHP211	Practical: II Electronics [Skill Based]	Core	Practical	3	0	0	5	0	0	0	0
25PHP205	Mathematical Physics	Core	Theory	3	4	0	0	4	25	75	100
25PHP206	Quantum Mechanics – II	Core	Theory	3	3	0	0	4	25	75	100
25PHP207	Physics of Nanoscience	Core	Theory	3	4	0	0	4	25	75	100
25PHP208	Medical Physics	Core	Theory	3	3	0	0	4	25	75	100
25PHP209	Group Theory and Molecular Spectroscopy	Core	Theory	3	4	0	0	4	25	75	100
25PHP210	Practical I: General Physics [Skill Based]	Core	Practical	3	0	0	5	3	40	60	100
25PHP211	Practical: II Electronics [Skill Based]	Core	Practical	3	0	0	5	3	40	60	100
25SECP201	Skill Enhancement Course: Cyber Security	Core	Theory	3	2	0	0	2	100	0	100
<b>Semester - III</b>											
25PHP312	Nuclear and Particle Physics	Core	Theory	3	5	0	0	4	25	75	100
25PHP313	Advanced Optics	Core	Theory	3	5	0	0	4	25	75	100
25PHP314A	Major Elective Course I Digital Communications	Elective	Theory	3	5	0	0	5	25	75	100
25PHP314B	Major Elective Course I Molecular Spectroscopy	Elective	Theory	3	5	0	0	5	25	75	100
25IDCPHP	Inter Disciplinary Course : Physics In Every Day Life (Theory)	Elective	Theory	3	3	0	0	2	25	75	100
25IDCPHP	Inter Disciplinary Course : Physics In Every Day Life (Practical)	Elective	Practical	3	0	0	2	2	40	60	100

Semester - IV											
25PHP421	Practical III - Advanced Physics	Core	Practical	3	0	0	5	0	0	0	0
25PHP422	Practical IV - Advanced Physics	Core	Practical	3	0	0	5	0	0	0	0
25PHP417	Applied Thermodynamics and Statistical Mechanics	Core	Theory	3	4	0	0	5	25	75	100
25PHP418	Problems in Core Physics	Core	Theory	3	4	0	0	4	25	75	100
25PHP419	Electromagnetic Theory	Core	Theory	3	4	0	0	5	25	75	100
25PHP420A	Major Elective Course -II Applied Solar Energy	Elective	Theory	3	4	0	0	5	25	75	100
25PHP420B	Films and Plasma Physics	Elective	Theory	3	4	0	0	5	25	75	100
25PHP421	Practical III - Advanced Physics (Skill Based)	Core	Practical	3	0	0	5	3	40	60	100
25PHP422	Practical IV - Advanced Physics (Skill Based)	Core	Practical	3	0	0	5	3	40	60	100
25PHP423	Project/Innovation/Start-Up	Core	Project	3	4	0	0	6	80	120	200