

**CBCS Based M.Sc. Physics Course Structure (w.e.f., Session 2022-23)**

S. No.	CODE	COURSE NAME	Category	L-T-P	CREDITS
<b>SEMESTER-I</b>					
1	<b>PHM401</b>	Classical Mechanics and Relativity	<b>C</b>	4-0-0	4
2	<b>PHM403</b>	Electrodynamics	<b>C</b>	4-0-0	4
3	<b>PHM405</b>	Quantum Mechanics-I	<b>C</b>	4-0-0	4
4	<b>PHM407</b>	Mathematical Physics	<b>C</b>	4-0-0	4
5	<b>PHM409</b>	Statistical Physics	<b>C</b>	4-0-0	4
6	<b>PHM411</b>	Physics Laboratory-I	<b>C</b>	0-0-8	4
		<b>TOTAL</b>		<b>20-0-8</b>	<b>24</b>
		Total Contact Hours		28	
<b>SEMESTER-II</b>					
1	<b>PHM402</b>	Quantum Mechanics-II	<b>C</b>	4-0-0	4
2	<b>PHM404</b>	Solid State Physics	<b>C</b>	4-0-0	4
3	<b>PHM406</b>	Electronics	<b>C</b>	4-0-0	4
2	<b>PHM408</b>	Nuclear and Particle Physics	<b>C</b>	4-0-0	4
4	<b>PHM410</b>	Physics Laboratory-II	<b>C</b>	0-0-8	4
5	<b>PHM412</b>	Optical Techniques and Instrumentation	<b>SEC</b>	2-0-4	4
		<b>TOTAL</b>		<b>18-0-12</b>	<b>24</b>
		Total Contact Hours		30	
<b>SEMESTER-III</b>					
1	<b>PHM501</b>	Atomic and Molecular Physics	<b>C</b>	4-0-0	4
3	<b>PHM503</b>	Introduction to Nanophysics	<b>C</b>	2-0-0	2
3	<b>PHM505</b>	Physics Laboratory-III	<b>C</b>	0-0-8	4
4	<b>PHM507</b>	Computational Physics	<b>SEC</b>	3-0-2	4
	<b>PHM509</b>	Generic Elective*	<b>GE*</b>	3-0-0	3
5		<b>DSE-I</b>	<b>DSE</b>	3-0-0	3
6	<b>PHM519</b>	Minor Project	<b>Project</b>	0-0-6	4
		<b>TOTAL</b>		<b>15-0-16</b>	<b>24</b>
		Total Contact Hours		<b>31</b>	
<b>SEMESTER-IV</b>					
1		<b>DSE-II</b>	<b>DSE</b>	3-0-0	3
2		<b>DSE-III</b>	<b>DSE</b>	3-0-0	3
3	<b>PHM518</b>	Major Project	<b>Project</b>	0-0-24	16
		<b>TOTAL</b>		<b>6-0-24</b>	<b>22</b>
		Total Contact Hours		<b>30</b>	
		<b>Total credits for all semesters</b>			<b>94</b>
<b>* GENERIC ELECTIVE (GE): Course taken from other Departments</b>					
S.No.	CODE	COURSE NAME	CREDITS		
<b>DISCIPLINE SPECIFIC ELECTIVES (DSE-I)</b>					
1	<b>PHM511</b>	Characterization of Solid-State Materials	3		
2	<b>PHM513</b>	Semiconductor Physics and Devices	3		
3	<b>PHM515</b>	Astrophysics-I	3		
4	<b>PHM517</b>	Nonlinear Dynamics and Chaos	3		
<b>DISCIPLINE SPECIFIC ELECTIVES (DSE-II)</b>					

1	<b>PHM502</b>	Laser Physics	3
2	<b>PHM504</b>	Advanced Nuclear and Particle Physics	3
3	<b>PHM506</b>	Nanoscience and Nanotechnology	3
4	<b>PHM508</b>	Soft Electronic Materials and Devices	3

**DISCIPLINE SPECIFIC ELECTIVES (DSE-III)**

1	<b>PHM510</b>	Thin Film Technology and Vacuum Science	3
2	<b>PHM512</b>	Nanophononics and Nanoplasmonics	3
3	<b>PHM514</b>	Optical Fiber Communications	3
4	<b>PHM516</b>	Astrophysics-II	3

*New course structure will be effective from admissions in 2022-2023. School/Department will not be bound to run all the courses. Minimum number of students may be fixed to run any elective course.*