

Fourth Year (Autumn Semester)														
1.	PH-503	Quantum Mechanics – I	PCC	4	3	1	0	3	0	25	0	25	50	0
2.	PH-505	Advanced Mathematical Physics	PCC	4	3	1	0	3	0	15	0	35	50	0
3.	PH-507	Classical Electrodynamics	PCC	4	3	1	0	3	0	25	0	25	50	0
4.	PH-509	Classical Mechanics	PCC	3	3	0	0	3	0	15	0	35	50	0
5.	PH-513	Semiconductor Devices and Applications	PCC	4	3	0	3	3	3	15	25	20	40	0
6.	MSC2	Minor Specialization Course- II	MSC	4										
		Total		19/										
				23										

Fourth Year (Spring Semester)														
1.	PH-502	Laboratory Work	PCC	3	0	0	6	0	4	0	50	0	0	50
2.	PH-504	Condensed Matter Physics	PCC	3	3	0	0	3	0	25	-	25	50	-
3.	PH-506	Statistical Mechanics	PCC	3	3	0	0	3	0	25	-	25	50	-
4.	PH-508	Quantum Mechanics - II	PCC	3	3	0	0	3	0	25	-	25	50	-
5.	PH-512	Physics of Earth's Atmosphere	PCC	4	3	1	0	3	0	25	-	25	50	-
6.	PH-518	Elements of Nuclear and Particle Physics	PCC	4	3	1	0	3	0	25	0	25	50	0
7.	MSC3	Minor Specialization Course- III	MSC	4										
		Total		20/										
				24										

Fifth Year (Autumn Semester)														
1.	PH-699	Seminar	SEM	2	0	0	0	0	0	-	-	-	100	-
2.	PH-600A	Dissertation Stage I	DIS	3	0	0	0	0	0	-	-	-	100	0
3.	PHN-ELE I	Departmental Elective – I	PEC	4	3	0	3	3	3	20	20	20	40	-
4.	PHN-ELE II	Departmental Elective – II	PEC	4	3	1	0	3	0	25	-	25	50	-
5.	PHN-ELE III	Departmental Elective – III	PEC	4	3	1	0	3	0	25	-	25	50	-
6.	PHN-ELE IV	Departmental Elective – IV	PEC	4	3	1	0	3	0	25	-	25	50	-
7.	MSC-4	Minor Specialization Course-IV	MSC	4										
		Total		21/										
				25										

Fifth Year (Spring Semester)														
1.	PHN-ELE V	Departmental Elective – V	PEC	4	3	1	0	3	0	25	-	25	50	-
2.	PHN-ELE VI	Departmental Elective – VI	PEC	4	3	1	0	3	0	25	-	25	50	-
3.	PH-600B	Dissertation Stage II	DIS	9	0	0	0	0	0	0	0	0	100	0
4.	MSC-5	Minor Specialization Course-V	MSC	4										
		Total		17/										
				21										

Year	BSC 16-28	ESC 16	HSSC 10	GSC 03	PCC(+SEM+DIS) 116-124	PEC 24-32	SEM 02	DIS 12	DISP 02	NCC/NSO /NSS 02	NCC/NSO/NSS/ Proficiency 02	Total
1	16	8	4	3	14	-	-	-	-	2	-	47
2	4	8	3	-	27	-	-	-	-	-	-	42
3	4	-	3	-	26	-	-	-	-	-	-	33
4	-	-	-	-	35	-	-	-	-	-	-	35
5	-	-	-	-	-	24	2	12	2	-	2	42
Total	24	16	10	3	102+14=116	24	2	12	2	2	2	199

Program Elective Courses (M.Sc. Physics)

Teaching Scheme					Contact Hours/Week			Exam Duration		Relative Weight (%)				
S. No	Subject Code	Course Title	Area	Cr.	L	T	P	Th.	Pr.	CWS	PRS	MTE	ETE	PRE
Departmental Elective -I (III Semester: One paper to be chosen)														
1.	PHN-601	Advanced Condensed Matter Physics	PEC	4	3	0	3	3	0	20	20	20	40	0
2.	PHN-603	Advanced Atmospheric Physics	PEC	4	3	0	3	3	0	20	20	20	40	0
3.	PHN-605	Advanced Laser Physics	PEC	4	3	0	3	3	0	20	20	20	40	0
4.	PHN-607	Advanced Nuclear Physics	PEC	4	3	0	3	3	0	20	20	20	40	0
Departmental Electives (III Semester: Three paper to be chosen & IV Semester: Two paper to be chosen)														
5.	PHN-602	Nuclear Astrophysics	PEC	4	3	1	0	3	0	25	-	25	50	-
6.	PHN-604	Physics of Nanosystems	PEC	4	3	1	0	3	0	25	-	25	50	-
7.	PHN-606	Superfluidity and Superconductivity	PEC	4	3	1	0	3	0	25	-	25	50	-
8.	PHN-608	Fiber and Nonlinear Optics	PEC	4	3	1	0	3	0	25	-	25	50	-
9.	PHN-610	Quantum Optics	PEC	4	3	1	0	3	0	25	-	25	50	-
10.	PHN-612	Advanced topics in Mathematical Physics	PEC	4	3	1	0	3	0	25	-	25	50	-
11.	PHN-614	Introduction to Superstring theory	PEC	4	3	1	0	3	0	25	-	25	50	-
12.	PHN-616	Advanced Electroceramics Technology	PEC	4	3	1	0	3	0	25	-	25	50	-
13.	PHN-617	Advanced Characterization Techniques	PEC	4	3	1	0	3	0	25	-	25	50	-
14.	PHN-618	Atomic and Molecular Collision Physics	PEC	4	3	1	0	3	0	25	-	25	50	-
15.	PHN-619	A Primer in Quantum Field Theory	PEC	4	3	1	0	3	0	25	-	25	50	-
16.	PHN-620	Advanced Quantum Field Theory	PEC	4	3	1	0	3	0	25	-	25	50	-
17.	PHN-621	Astrophysics	PEC	4	3	1	0	3	0	25	-	25	50	-
18.	PHN-622	Solar Terrestrial Physics	PEC	4	3	1	0	3	0	25	-	25	50	-
19.	PHN-623	General Relativity	PEC	4	3	1	0	3	0	25	-	25	50	-
20.	PHN-624	Computational Nuclear Physics	PEC	4	3	1	0	3	0	25	-	25	50	-
21.	PHN-625	Particle Physics	PEC	4	3	1	0	3	0	25	-	25	50	-
22.	PHN-626	Advanced Atomic and Molecular Physics	PEC	4	3	1	0	3	0	25	-	25	50	-
23.	PHN-627	Quantum Theory of Solids	PEC	4	3	1	0	3	0	25	-	25	50	-
24.	PHN-629	Weather Forecasting	PEC	4	3	1	0	3	0	25	-	25	50	-
25.	PHN-631	Nuclear Instrumentation	PEC	4	3	1	0	3	0	25	-	25	50	-
26.	PHN-633	Physics and Technology of Thin Films	PEC	4	3	1	0	3	0	25	-	25	50	-
27.	PHN-635	Advanced Nuclear reactions	PEC	4	3	1	0	3	0	25	-	25	50	-
28.	PHN-637	Semiconductor Photonics	PEC	4	3	1	0	3	0	25	-	25	50	-
29.	PHN-638	Advanced Light Sources	PEC	4	3	1	0	3	0	25	-	25	50	-

30.	PNN-639	Superconducting Radio Frequency for particle accelerators	PEC	4	3	1	0	3	0	25	-	25	50	-
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Department of Physics Minor Specialization Course

S. No.	Subject Code	Course Title	Semester		Credits
			Autumn	Spring	
1	PHN-207	Thermal and Statistical Physics	√		4
2	PHN-211	Quantum Physics	√		3
3	PHN-204	Atomic Molecular and Laser Physics		√	3
4	PHN-206	Element of Condensed Matter Physics		√	3
5	PHN-208	Nuclear Physics and Applications		√	3
6	PHN-212	Applied Optics		√	4
7	PHN-315	Laser & Photonics	√		3
8	PHN-317	Plasma Physics and Applications	√		3
9	PHN-503	Quantum Mechanics-I	√		4
10	PHN-507	Classical Electrodynamics	√		4
11	PHN-509	Classical Mechanics	√		3
12	PHN-504	Condensed Matter Physics		√	3
13	PHN-506	Statistical Mechanics		√	3
14	PHN-508	Quantum Mechanics-II		√	3