

Overall credits structure:

Total credits =90

Program Code (PC)	Program Elective (PE)	Open Elective (OE)	Total Credit
69	15	06	90

Course No.	Title	Type	L-T-P	Credits
Semester I				
PHL 551	Classical Mechanics	PC	3-1-0	4
PHL 553	Mathematical Physics	PC	3-1-0	4
PHL 555	Quantum Mechanics	PC	3-1-0	4
PHL 557	Electronics	PC	3-1-0	4
PHP 561	Laboratory I	PC	0-0-12	6
-	Semester Total	-	-	22
Semester II				
PHL 552	Electrodynamics	PC	3-1-0	4
PHL 554	Concepts of Solids	PC	3-1-0	4
PHL 556	Statistical Mechanics	PC	3-1-0	4
PHL 558	Applied Optics	PC	3-1-0	4
PHP 562	Laboratory II	PC	0-0-12	6
-	Programme Elective-1	PE	3-0-0	3
-	Semester Total	-	-	25
Semester III				
PHD 651	Project Part 1	PC	0-0-6	3
PHL 565	Cooperative Phenomena in Solids	PC	3-1-0	4
PHL 567	Atomic & Molec. Spectroscopy	PC	3-1-0	4
PHL 569	Nuclear physics	PC	3-1-0	4
PHL 563	Adv. Laboratory	PC	0-0-8	4
PE-2	-----	PE	3-0-0	3
OE-1	-----	OE	3-0-0	3

-	Semester Total	-	-	25
Semester IV				
PHD652	Project Part-2	PE	0-0-12	6
PE-3	-----	PE	3-0-0	3
PE-4	-----	PE	3-0-0	3
PE-5	-----	PE	3-0-0	3
OE-2	-----	OE	3-0-0	3
-	Semester Total	-	-	18
PHL 556	Statistical Mechanics	PC	3-1-0	4
PHL 558	Applied Optics	PC	3-1-0	4
PHP 562	Laboratory II	PC	0-0-12	6
-	Programme Elective-1	PE	3-0-0	3
-	Semester Total	-	-	25

Programme Electives (PE)

Course No.	Type	L-T-P	Credits
PHD658	Mini Project	0-0-6	3
PHL 653	Semiconductor Electronics	3-0-0	3
PHL 654	Experimental Methods	3-0-0	3
PHL 655	Laser Physics	3-0-0	3
PHL 656	Microwaves	3-0-0	3
PHL 657	Plasma Physics	3-0-0	3
PHL 702	Science and Tech. of Thin Films	3-0-0	3
PHL 723	Vacuum Science and Cryogenics	3-0-0	3
PHL 726	Nanostructured materials	3-0-0	3
PHL741	Quantum Electrodynamics and Particle Physics	3-0-0	3
PHL742	General Relativity and Intro. Astrophysics	3-0-0	3

PHL743	Group Theory and its Applications	3-0-0	3
PHL744	Adv. Topics in Quantum Mechanics	3-0-0	3
PHL755	Statistical and Quantum Mechanics	3-0-0	3
PHL758	Theory and Application of Holography	3-0-0	3
PHL790	Integrated Optics	3-0-0	3
PHL791	Fiber Optics	3-0-0	3
PHL792	Optical Electronics	3-0-0	3
PHL661	Selected Topics	3-0-0	3
PHI662	Selected Topics	3-0-0	3
PHL663	Independent Topics	3-0-0	3