

V141: M.Sc. (PHYSICS) {2022 PATTERN}

SN	Course Type	Code	Name	CA	EE	TM	Type	CR	Min %
----	-------------	------	------	----	----	----	------	----	-------

Semester I: 20 Credits									
01	Core	PHY111	Mathematical Methods in Physics	20	80	100	T	4	40%
02	Core	PHY112	Classical Mechanics	20	80	100	T	4	40%
03	Core	PHY113	Electronic Devices	20	80	100	T	4	40%
04	Applied	PHY114	Experimental Techniques in Physics	20	80	100	T	4	40%
05	Practical	PHY115	Physics I - Practical	10	40	50	P	2	40%
06	Practical	PHY116	ElectronicsDevices - Practical	10	40	50	P	2	40%
07	Audit	GEN203	Value Education	20	NA	NA	T	4	Completed
Semester II: 20 Credits									
08	Core	PHY121	Quantum Mechanics	20	80	100	T	4	40%
09	Core	PHY122	Atomic and Molecular Physics	20	80	100	T	4	40%
10	Core	PHY123	Electrodynamics	20	80	100	T	4	40%
11	Applied	PHY124	'C' Programming and Computational Methods	20	80	100	T	4	40%
12	Practical	PHY125	Physics II - Practical	10	40	50	P	2	40%
13	Practical	PHY126	'C' Programming - Practical	10	40	50	P	2	40%
14	Audit	GEN121	Cyber Security	20	NA	NA	T	4	Completed

Semester III: 20 Credits									
15	Core	PHY131	Statistical Mechanics	20	80	100	T	4	40%
16	Core	PHY132	Condensed Matter Physics	20	80	100	T	4	40%
17	Practical	PHY133	Physics III - Practical	10	40	50	P	2	40%
18	Applied	PHY134	Fundamentals of Materials Science	20	80	100	T	4	40%
Select Elective Group A: PHY135 & PHY136 or Group B: PHY137 & PHY138									
Elective Group A: PHY135 & PHY136									
19	Elective Theory &Practical	PHY135	Energy Studies	20	80	100	T	4	40%
20		PHY136	Energy Studies - Practical	10	40	50	P	2	40%
Elective Group B: PHY137 & PHY138									
21	Elective Theory &Practical	PHY137	Electronic Instrumentation	20	80	100	T	4	40%
22		PHY138	Electronic Instrumentation- Practical	10	40	50	P	2	40%
23	Audit	HRC002	Human Rights and the Indian Constitution	20	NA	NA	T	4	Completed
Semester IV: 20 Credits									
24	Core	PHY141	Nuclearand Particle Physics	20	80	100	T	4	40%
25	Core	RES505	Research Methodology	20	80	100	T	4	40%
26	Applied	PHY143	Physics of Thin Film	20	80	100	T	4	40%
Select Elective A: PHY144 or B: PHY145									
27	Elective Theory A or B	PHY144	Physics of Nano Materials	20	80	100	T	4	40%
28		PHY145	Physics of LASERS	20	80	100	T	4	40%
29	Project	PHY146	Project	20	80	100	PW	4	40%