

Course Curriculum – B.Sc. (Honours/Honours with Research) in Physics and B.Sc. in Physics

YEAR	FIRST SEMESTER							SECOND SEMESTER							
	Type	Code	Course Name	L	T	P	C	Type	Code	Course Name	L	T	P	C	
I	MAJ	PHY1101	Mechanics	2	1	2	4	MAJ	PHY1201	Waves and Optics	2	1	2	4	
	MIN-1	CHY1101	Atomic Structure, Bonding and Periodicity	2	1	2	4	MIN-2	MAS1203	Ordinary Differential Equations	3	1	0	4	
	MD-1	MAS1110	Fundamental of Calculus	3	1	0	4	MD-2	CHY1201	States of Matter and Molecular Properties	2	1	2	4	
	AEC-1	LLC1110	Communicative English	2	0	0	2	AEC-2	PHY1240	Report Writing	1	1	0	2	
	SEC-1	MAS1122	Fundamentals of Computer	1	0	2	2	SEC-2	MAS1221	Logical Reasoning and Competitive Aptitude	1	1	0	2	
	VAC-1	CHY1003	Environmental Science	2	0	0	2	SEC-3	MAS1222	Introduction to Python Programming	1	0	2	2	
	VAC-2	PES1030	Health, Fitness, and Active Lifestyle	0	1	2	2	VAC-3	MAS1223	Ancient Indian Knowledge System	2	0	0	2	
		Total			12	4	8	20		Total			12	5	6

YEAR	THIRD SEMESTER							FOURTH SEMESTER							
	Type	Code	Course Name	L	T	P	C	Type	Code	Course Name	L	T	P	C	
II	MAJ	PHY2101	Fundamentals of Electricity and Magnetism	2	1	0	3	MAJ	PHY2201	Basic Electronics	2	1	0	3	
	MAJ	PHY2130	Practicals on Electricity and Magnetism	0	0	2	1	MAJ	PHY2230	Basic Electronics Lab	0	0	2	1	
	MAJ	PHY2102	Mathematical Physics	3	1	0	4	MAJ	PHY2202	Fundamentals of Thermodynamics	2	1	0	3	
								MAJ	PHY2231	Thermodynamics Lab	0	0	2	1	
	MIN-3	xxxxx	xxxxxxxxxxxxx	-	-	-	4	MAJ	PHY2203	Classical Mechanics	3	1	0	4	
	MD-3	xxxxx	xxxxxxxxxxxxx	-	-	-	3	Project	PHY2270	Project Based Learning	0	0	0	2	
	AEC-3	CHY2170	Scientific Writing	2	0	0	2	MIN-4	xxxxx	xxxxxxxxxxxxx	-	-	-	4	
	SEC-4	PHY2140	Basic Instrumentation Skills	2	1	0	3	AEC-4	PHY2240	Scientific Translation and Linguistic Competence	2	0	0	2	
		Total			9	3	2	20		Total			9	3	4

YEAR	FIFTH SEMESTER							SIXTH SEMESTER						
	Type	Code	Course Name	L	T	P	C	Type	Code	Course Name	L	T	P	C
III	MAJ	PHY3101	Electromagnetic Theory	3	1	0	4	MAJ	PHY3201	Solid State Physics	3	1	0	4
	MAJ	PHY3130	Electromagnetic lab	0	0	4	2	MAJ	PHY3230	Solid State Physics Lab	0	0	4	2
	MAJ	PHY3102	Modern Physics	3	1	0	4	MAJ	PHY3202	Nuclear and Particle Physics	3	1	0	4
	MAJ	PHY3131	Modern Physics Lab	0	0	4	2	MAJ	PHY3231	Nuclear Physics Lab	0	0	4	2
	MAJ	PHY3103	Plasma Physics	3	1	0	4	MAJ	PHY3203	Nanomaterials, Thin Films & Applications	3	1	0	4
	MIN-5	xxxxxx	xxxxxxxxxxxxxx	-	-	-	4	MIN-6	xxxxxx	xxxxxxxxxxxxxx	-	-	-	4
			Total	9	3	8	20			Total	9	3	8	20

YEAR	SEVENTH SEMESTER							EIGHTH SEMESTER						
	Type	Code	Course Name	L	T	P	C	Type	Code	Course Name	L	T	P	C
IV	MAJ	PHY4101	Statistical Mechanics	3	1	0	4	EC/RP	****/PHY4270	Elective Courses/Research Project	-	-	-	12
	MAJ	PHY4102	Atomic, Molecular & Laser Physics	3	1	0	4	MIN-7	xxxxxx	xxxxxxxxxx	-	-	-	4
	MAJ	PHY4130	Atomic and Molecular Physics Lab	0	0	4	2	MIN-8	xxxxxx	xxxxxxxxxx	-	-	-	4
	MAJ	PHY4103	Advance Quantum	3	1	0	4							
	MAJ	PHY4104	Numerical Methods and Programming	3	1	0	4							
	MAJ	PHY4131	Advance Spectroscopy Lab	0	0	4	2							
			Total	12	4	8	20			Total	-	-	-	20

****	Code	Course Name	L	T	P	C
EC-1	PHY4220	Low Temperature Physics	3	1	0	4
EC-2	PHY4221	Nuclear Fuel and Reactor	3	1	0	4
EC-3	PHY4222	Introduction to Ceramics	3	1	0	4