

UG Certificate in (Basic Physics)			
Paper Code	Course Title	Credits	
	Semester I	C	L/T/P
PHY51MJ00104	Mechanics and General Properties of Matter	04	4/0/0
PHY51SE00203	Basic Physics Laboratory - I	03	0/0/3
PHY51VA00302	The Science of Mindfulness: A path to Well-being	02	2/0/0
PHY51MN00404	Mechanics and General Properties of Matter (Minor for other Department within Discipline)	04 ^B	4/0/0
PHY51MN00503	Mechanics and General Properties of Matter (Minor for other Department of Different Discipline)	03 ^C	3/0/0
	Minor from other Department within Discipline	04	
	Minor from other Department of Different Discipline	03	
	English, Hindi (AEC)	02 ^D	
	Valued-Added Course (Yoga, Sports)	02 ^B	
	Total Credit	20	
Paper Code	Course Title	Credits	
	Semester II	C	L/T/P
PHY52MJ00604	Electronics	04	4/0/0
PHY52SE00703	Basic Physics Laboratory - II	03	0/0/3
PHY52VA00803	Biography of Indian Scientists	02	2/0/0
PHY52MN00904	Electronic (Minor for other Department within Discipline)	04 ^B	4/0/0
PHY52MN01003	Electronics (Minor for other Department of Different Discipline)	03 ^C	3/0/0
	Minor from other Department within Discipline	04	
	Minor from other Department of Different Discipline	03	
	English, Hindi (AEC)	02 ^D	
	Valued-Added Course (Yoga, Sports)	02 ^B	
	Total Credit	20	

UG Diploma (Basic Physics)			
Paper Code	Course Title	Credits	
	Semester III	C	L/T/P
PHY61MJ01104	Mathematical Physics - I	04	4/0/0
PHY61MJ01204	Wave and Optics	04	4/0/0
PHY61SE01303	Physics Laboratory - I	03	0/0/3
PHY61MN01404	Mathematical Physics - I (Minor for other Department within Discipline)	04 ^B	4/0/0
PHY61MN01504	Wave and Optics (Minor for other Department within Discipline)	04 ^B	4/0/0
PHY61MN01603	Mathematical Physics - I (Minor for other Department of Different Discipline)	03 ^C	3/0/0
PHY61MN01704	Wave and Optics (Minor for other Department of Different Discipline)	03 ^C	3/0/0
	Minor from other Department within Discipline	04	
	Minor from other Department of Different Discipline	03	
	English, Hindi (AEC)	02 ^D	
	Total Credit	20	
Paper Code	Course Title	Credits	
	Semester IV	C	L/T/P
PHY62MJ01804	Mathematical Physics-II	04	4/0/0
PHY62MJ01904	Electricity and Magnetism	04	4/0/0
PHY62MJ02004	Physics Laboratory - II	04	0/0/4
PHY62MJ02102	Heat and Thermodynamics	02	2/0/0
PHY62MN02204	Mathematical Physics-II (Minor for other Department within Discipline)	04 ^B	4/0/0
PHY62MN02304	Electricity and Magnetism (Minor for other Department within Discipline)	04 ^B	4/0/0
	Minor from other Department within Discipline	04	
	English, Hindi (AEC)	02 ^D	
	Total Credit	20	

Bachelor of Science (Physics)			
Paper Code	Course Title	Credits	
	Semester V	C	L/T/P
PHY71MJ02404	Quantum Mechanics	04	4/0/0
PHY71MJ02504	Solid State Physics	04	4/0/0
PHY71MJ02604	Physics Laboratory - III	04	0/0/4
PHY71MJ02702	Theory of Relativity	02	0/0/2
PHY71MN02802	Internship (Department)	02	0/0/2
PHY71MN02904	Quantum Mechanics (Minor for other Department within Discipline)	04 ^B	4/0/0
PHY71MN03004	Solid State Physics (Minor for other Department within Discipline)	04 ^B	4/0/0
	Minor from other Department within Discipline	04	
	Total Credit	20	
Paper Code	Course Title	Credits	
	Semester VI	C	L/T/P
PHY72MJ03104	Nuclear Physics	04	4/0/0
PHY72MJ03204	Atomic and Molecular Physics	04	4/0/0
PHY72MJ03304	Statistical Mechanics	04	4/0/0
PHY72MJ03404	Physics Laboratory - IV	04	0/0/4
PHY72MN03504	Nuclear Physics (Minor for other Department within Discipline)	04 ^B	4/0/0
PHY72MN03604	Atomic and Molecular Physics (Minor for other Department within Discipline)	04 ^B	4/0/0
PHY72MN03704	Statistical Mechanics (Minor for other Department within Discipline)	04 ^B	4/0/0
	Minor from other Department within Discipline	04	
	Total Credit	20	

Bachelor of Science Honours (Physics)			
Course Code	Course Title	Credit	
Semester-VII		C	L/T/P
PHY81MJ03804	Advance Mathematical Physics	4	4/0/0
PHY81MJ03904	Classical Mechanics	4	4/0/0
PHY81MJ04004	Electronics Lab	4	0/0/4
PHY81MJ04104	Electronics and Experimental Methods	4	4/0/0
PHY81MN04204	Classical Mechanics (Minor for other Department within Discipline)	4 ^B	4/0/0
PHY81MN04304	Electronics and Experimental Methods (Minor for other Department within Discipline)	4 ^B	4/0/0
	Minor from other Department within Discipline	4	
Total Credit		20	
Course Code	Course Title	Credit	
Semester - VIII		C	L/T/P
PHY82MJ04404	Advance Quantum Mechanics	4	4/0/0
PHY82MJ04504	Classical Electrodynamics	4	4/0/0
PHY82MJ04604	Computational Physics Lab	4	0/0/4
PHY82MJ04704	Introduction of Research Methodology	4	4/0/0
PHY82MN04804	Classical Electrodynamics (Minor for other Department within Discipline)	4 ^B	4/0/0
	Minor from other Department within Discipline	4	
Total Credit		20	

Bachelor of Science Honours with Research (Physics)			
Course Code	Course Title	Credit	
Semester - VIII		C	L/T/P
PHY82MN04904	Projects	12	0/0/12
PHY82MJ05004	Advanced Physics Lab	4	0/0/4
	(Minor for other Department within Discipline)	4	
Total Credit		20	

Master of Science (Integrated) in Physics			
Course Code	Course Title	Credit	
Semester-IX (Specialization in Condensed Matter Physics)		C	L/T/P
PHY91MJ05104	Condensed Matter Physics	4	4/0/0
PHY91MJ05204	Condense Matter Physics Lab – I	4	0/0/4
PHY91MJ05304	Physics of Materials	4	4/0/0
PHY91MJ05404	Experimental Techniques	4	4/0/0
	From Optional Major ^A	4	
Total Credit		20	
Semester-X (Specialization in Condensed Matter Physics)		C	L/T/P
PHY92MJ05504	Advanced Condensed Matter Physics	4	4/0/0
PHY92MJ05604	Condensed Matter Physics Lab – II	4	0/0/4
PHY92MJ05704	Solid State Devices	4	4/0/0
PHY92MJ05804	Dissertation	4	0/0/4
	From Optional Major ^A	4	
PHY92MJ07320	Project (Condense Matter Physics)	20 ^E	
Total Credit		20	

Course Code	Course Title	Credit	
Semester-IX (Specialization in Nuclear and Particle Physics)		C	L/T/P
PHY91MJ05904	Advance Nuclear Physics	4	4/0/0
PHY91MJ06004	Nuclear and Particle Physics Lab. – I	4	0/0/4
PHY91MJ06104	Introduction of Astrophysics	4	4/0/0
PHY91MJ06204	Nuclear Reactor Physics	4	4/0/0
PHY91MJ05404	Experimental Techniques	4	4/0/0
Total Credit		20	
Course Code	Course Title	Credit	
Semester - X (Specialization in Nuclear and Particle Physics)		C	L/T/P
PHY92MJ06304	Advanced Particle Physics	4	4/0/0
PHY92MJ06404	Nuclear and Particle Physics Lab. – II	4	0/0/4
PHY92MJ06504	Computational and Simulation	4	4/0/0
PHY92MJ06604	Particle Accelerator Physics	4	4/0/0
PHY92MJ05804	Dissertation	4	0/0/4
PHY92MJ07420	Project (Nuclear Physics/High Energy Physics)	20 ^E	
Total Credit		20	

A: Other Major Course

S. No.	Course Code	Course Name
1	PHY91MJ06704	Physics of Magnetism and Spintronics
4	PHY91MJ06804	Fundamentals of Scanning Probe Microscopy
2	PHY92MJ06904	Nanoscience and Nanotechnology
3	PHY92MJ07004	Renewable Energy: Solar and Hydrogen
6	PHY92MJ07104	Nanoelectronics
7	PHY92MJ07204	Low temperature physics

B: Students enrolled in Integrated M. Sc. /B.Sc.(Physics)/B.Sc.(Honours) / (Research) should obtained 4 credits of minor from the different department of same disciplinary.

C: Students enrolled in Integrated M. Sc. /B.Sc.(Physics)/B.Sc.(Honours) / (Research) should obtained 3 credits of minor from the different department from multidisciplinary. Minor and multidisciplinary course will be suggested by Department of Physics.

D: Students enrolled in Integrated M. Sc. /B.Sc.(Physics)/B.Sc.(Honours) / (Research) should obtained 2 credit from School of Languages and Literature.

E: Students may undertake a 20-credit project in Semester X.