CURRICULUM STRUCTURE FOR FOUR YEAR B.SC (HONOURS) PHYSICS DEGREE

Core and Elective courses Semesters I to VIII

SEM	DSC	Title of the DSC Course
Sem I	A1	Mechanics & Properties of Matter (4 credits)
Sem II	A2	Practical course I (2 credits) Electricity and Magnetism (4 credits) Practical course II (2 credits)
Sem III	A3	Wave motion and optics (4 credits) Practical III (2 credits)
Sem IV	A4	Thermal Physics & Electronics (4 credits) Practical IV (2 credits)
Sem V	A5	Classical Mechanics and Quantum Mechanics I (3 credits) Practical V (2 credits)
	A6	Elements of Atomic & Molecular Physics (3 credits) Practical VI (2 credits)
	B5	Applied Physics (3 credits) Practical VII (2 credits)
Sem VI	A7	Elements of Nuclear Physics and Nuclear Instruments (3 credits) Practical VIII (2 credits)
	A8	Elements of Condensed Matter Physics (3 credits) Practical IX (2 credits)
	В6	Nanophysics (3 credits) Practical X (2 credits)
Sem VII	A9	Mathematical Methods of Physics I (3 credits) Practical XI (2 credits)
	A10	Classical Electrodynamics (3 credits) Practical XII (2 credits)
	A11	Experimental methods of Physics (3 credits)
	RM	Research methodology (3 credits)
Sem VIII	A12	Classical Mechanics and Quantum Mechanics II (3 credits) Practical XIII (2 credits)
	A13	Statistical Mechanics (3 credits)
	A14	Astrophysics & Astronomy (3 credits)
	RP	Research Project (6 credits)

Note: In lieu of the research project, two DSE's may be offered.

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OPEN ELECTIVES FOR SEMESTERS I TO IV

Semester	OE	Title of the Open Elective course
Sem I	OE-1	Sports Science (3 credits)
Sem II	OE-2	Astronomy (3 credits)
Sem III	OE-3	Optical Instruments (3 credits)
Sem IV	OE-4	Energy sources (3 credits)

Note: OE courses will not have associated practical courses.

DISCIPLINE SPECIFIC ELECTIVES (DSE) FOR SEMESTERS VII & VIII

Semester	Code	Titles of Discipline Specific Electives
VII	AE1	i) Condensed matter Physics I (3 credits) ii) Theoretical and Computational Physics I (3 credits) iii) Plasma Physics (3 credits) (students can choose one from the above courses)
VII	AE2	i) Nuclear and Particle Physics I (3 credits) ii) Biophysics (3 credits) iii) Physics of semiconductor devices (3 credits) (students can choose one from the above courses)
VIII	AE3	i) Atomic and Molecular Physics I (3 credits) ii) Materials Physics and Nanomaterials (3 credits) iii) Laser and non-Linear Optics (3 credits) (students can choose one the above courses)

Note: AE courses will not have associated practical courses.

Students have to choose Skill Enhancement Courses and Vocational Courses from the general list to be notified by the University/HEC/State Government.