Syllabus distribution of Physics (Hons and General)

1. Honours

	SEM I	
Paper	**Topic**	**Teacher**
C1	Calculus ,Dirac Delta function and its properties	TG
	Vector Calculus, Orthogonal Curvilinear Coordinates:	UD
C2	Fundamentals of Dynamics Work and Energy, Collisions:Rotational Dynamics	SM
	Gravitation and Central Force Motion, Elasticity, Fluid Motion	SP
	Non-Inertial Systems, Special Theory of Relativity, Oscillation	SS
GE 1	Planck's Quantum, Problems with Rutherford model, Position measurement, Two slit interference experiment, One Dimensional infinitely Rigid Box, Size and structure of atomic nucleus and its relation with atomic weight, Radioactivity, Fission and fusion	SS+TG
	SEM III	
C3	MATHEMATICAL PHYSICS-II ,Fourier Series, Some Special Integrals, Theory of Errors	**SS**
	Frobenius Method and Special Functions	**SM**
	Partial Differential Equations	UD
C4	Introduction to Thermodynamics ,Zeroth and First Law of Thermodynamics, Second Law of Thermodynamics, Entropy, Thermodynamic Potentials, Maxwell's Thermodynamic Relations	**SP**
	Kinetic Theory of Gases, Distribution of Velocities, Molecular Collisions, Real Gases,	**UD**
C5	DIGITAL SYSTEMS AND APPLICATIONS	**TG**
GE 3	Crystal Structure, Elementary Lattice Dynamics, Dielectric Properties of Materials, Elementary band theory, Superconductivity	**UD+SP**
	SEM V	
C8	**QUANTUM MECHANICS AND APPLICATIONS**	**SM TG**
C9	**SOLID STATE PHYSICS,** Crystal Structure, Elementary Lattice Dynamics, Elementary band theory	**UD**
	Ferroelectric Properties of Materials, Dielectric Properties of Materials, Superconductivity:	**SP**
DSE 1	**Classical Dynamics :** Classical Mechanics of Point Particles	**TG**
	Small Amplitude Oscillations, Special Theory of Relativity	**SS**
	Fluid Dynamics	**SP**
DSE 2	**Nuclear and Particle Physics:** General Properties of Nuclei : Nuclear Models, Nuclear Reaction : Particle physics	**UD**
	Radioactive decay, interaction of nuclear radiation with matter, Detector for nuclear radiation, Particle acceletors	**SS**

1. General

Sem-I (G)		
Paper	**Topic**	**Teacher**
C-1A: DSC-1AT	Mechanics : **Vectors, Ordinary Differential Equations, Laws of motion, Momentum and Energy, Rotational Motion, Gravitation, Oscillations, Elasticity**	MA
	Special Theory of Relativity	SS
Sem-III(G)		
DSC 1C	Thermal Physics and Staistical Mechanics **Superposition of Two Collinear Harmonic oscillations, Superposition of Two Perpendicular Harmonic Oscillations, Waves Motion- General, Fluids, Sound**	MA
SEC-1	Physics Workshop Skill **Basic Electricity Principles, Understanding Electrical Circuits, Electrical Drawing and Symbols, Generators and Transformers**	TG
Sem-V (G)		
DSE-2B	Solid State Physics: **Crystal Structure, Elementary Lattice Dynamics, Elementary band theory, Dielectric Properties of Materials**	UD
	Solid State Physics: **Magnetic Properties of Matter, Superconductivity**	SP
SEC-3	**Weather Forecasting**	MA