

Curriculum Plan for 2026-27 odd sem

Prof. Seema Gupta

IVth year DSE NanoPhysics

No. Of period: 1

TOPICS	No. OF LECTURES	MONTH WISE SCHEDULE	Tutorial/Assignment/presentation
Applications of nanomaterials, MEMS, NEMS, Target drug delivery, medical diagnostics, Sun screen lotions, paints, Other applications	5	July - Aug	Assignment
Time and length scale, diffusive and ballistic transport, Conductance quantization in 2DEG, Integer quantum hall effect, Quantization in 1D Structure using split gate.	4	September	Assignment
Charging effect, Coulumb Blockade effect Single electron transfer device, Excitons in semiconductor-optical properties	4	October	Test
Preparation of colloidal solutions of metals, metal oxide nanoparticles	3	November	Assignment