

CURRICULUM PLAN 2026-27 (Odd Semester: VII)
B. Sc. (HONS.) PHYSICS

DISCIPLINE-SPECIFIC ELECTIVE PAPER
NANOSCIENCE
UPC - 2223010035

Teacher: Prof. Sudha Gulati

Topic	Allocation of Lectures	Month wise schedule followed by the Department	Tutorial/Assignment/ Presentation etc.
I. Basic Introduction to Nano Science, Implications of Nanoscience, Classification (0D, 1D, 2D, 3D), Electronic, Mechanical, Optical, Magnetic, Thermal Properties	3 lectures	Aug - September	Problems based on Nanoscience Assignment 1
II. Schrodinger equation, Brief Review, Applications – 1D box, 3D box, Step potential, Band Structure, Density of states	8 lectures	September - October	Problems related to Applications of the Schrodinger equation and density of states Test 1
III. Synthesis of Nanomaterials – Top down and Top up approach, Ball milling, Spin Coating, PVD, CVD, Thermal Evaporation	4 Lectures	November	Related Problems of Techniques of Synthesis, Advantages and Disadvantages, Comparison Revision of Syllabus Assignment 2