Phys 577

Nanostructures Science and Engineering

(Msc. condensed matter physics)

Credit Hours: 3 (3+0+0) hours per week

Introduction to nanostructure, Nanoparticles, Nanowires, Superlattices , Fullerenes, Nanotubes, Graphene , Interfaces, Silicon Technology, Solar Cells , Magnetic Data Storage, Spin Valves, Self-Assembly, Supermolecular Chemistry, Single Electron Devices, Molecular Electronics, Bio-Interfaces, Bio-Sensors, Molecular Motors, Quantum dots; Nano-scale probes; Fabrication of nanostructures; Transport in low-D systems; Optoelectronics of nanostructures