PHYSICS (PHY)

PHY 565 Physical Mechanics (3 Credits)

Contact the department for specific course information.

PHY 566 Electricity and Magnetism (3 Credits) Contact the department for specific course information.

PHY 580 Quantum Mechanics for Material Science (3 Credits)

This course covers basic principles, the Schrodinger equation, wave functions, representation of dynamical variables as operators or matrices; bound and continuum states in one-dimensional systems; bound states in central potentials; hydrogen atoms; Perturbation Theory; the interaction of electromagnetic radiation with atomic systems; rotations and angular momentum and applications to solid state systems

PHY 590 Physics Demonstration (3 Credits)

Contact the department for specific course information.

PHY 591 Experimental Concepts in Physics (3 Credits) Contact the department for specific course information.

PHY 653 Solid State Physics (3 Credits)

This course covers mechanical, thermal, and electric properties of solids; crystal structure; Band Theory; semiconductors; phonons and transport phenomena.

PHY 675 Electricity and Magnetism (3 Credits)

This course covers the development of Maxwell's equations, Conservation Laws, problems in electrostatics and magnetostatics, time-dependent solutions of Maxwell's equations, motion of particles in electromagnetic fields, plane waves in dielectric and conductive media, dipole and quadrupole radiation from nonrelativistic systems, Fourier analysis of radiation field and photons, and scattering and diffraction of electromagnetic waves.