

LC Physics H Course 1

- Optics: Reflection & Mirrors.
- Optics: Refraction & Lenses.
- Current Electricity: Circuits, Ohm's Law, Resistivity, Resistance, Wheatstone & Metre Bridges.
- Circuit Problems: Resistors, Inductance Coils, Diodes with DC & AC Sources.

LC Physics H Course 2

- Sound: Sound Intensity, Decibel Scale, Velocity of Sound, Doppler Effect.
- Sound: Travelling Waves, Standing Waves, Open & Closed Pipes, Sonometer.
- Electrostatics: Coulomb Law, Definition of Charge, Electroscope.
- Capacitance: Parrell Plate, Van De Graaf Generator, Energy Heat & Temperature, Calibration, Latent & Specific Heat, Heat Exchangers, Heat Engines, Heat Pumps, Refrigerators.

LC Physics H Course 3

- Atomic Theory: Rutherford, Millikan, Planck, Bohr, Electromagnetic Radiation & Spectrum, Electron, Photon, Line & Continuous Spectra.
- Photoelectric Effect: Importance & Photocells.
- X- Rays: Rontgen, X-Ray Tubes, Applications.
- Cathode Ray Tubes: Electric & Magnetic Fields, Faraday, Fluorescence.
- Semiconductors: Theory, Diodes.
- Radioactivity: Detectors, Nuclear Decay Processes.
- Fission & Fusion: Nuclear Processes, Reactors, Link to Heat Exchangers & Power.

LC Physics H Course 4

- Vectors: Addition, Equilibrium.
- Newton's Laws: Force, Momentum, Momentum Conservation, Friction.
- Kinematics: Equations & Problem Solving.
- Work: Energy & Power, Mechanical Energy.
- Conservation Centripetal Forces: Types of Centripetal Forces, Radians, Problem Solving.

- Gravitation: Satellites, Weightlessness, Earth Spin, Link to Doppler & Speed of Light.
- Simple Harmonic Motion: Pendulums, Spring Constants.
- Moments: Equilibrium, Couples.
- Archimedes: Flotation, Hot Air Ballons, Density, Boyle's Law.

LC Physics H Course 5

- Mechanics.
- Optics.
- Light.
- Heat.
- Sound.
- Resistance.