Electricity, Magnetism & Optics

by
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Course Synopsis

- Learning topics are focused on three fields: (i) electricity, (ii) magnetism, and (iii) optics physics.

- The stated focus are planned to be delivered during lectures; which cover eight main chapters. For electricity, the chapters covered are: (i) electric charge & electric field, (ii) Gauss's law & electric potential, (iii) capacitance & dielectric, and (iv) current, resistance & DC circuit. Magnetism part is covered in (i) magnetism (introduction), and (ii) electromagnetic induction and Faraday's law; whereas for optics; i.e., (i) the nature of light and the law of optics, and (ii) Interference, diffraction and polarization.

- Learners should be able to (i) explain theories learned to solve problems of electricity, magnetism and optics and (ii) analyze the appropriate concepts learned using the right principle and laws

Course Outcomes

CO1	Describe the basic conceptual knowledge of electricity, magnetism and optics
CO2	Explain theories learned to solve problems of electricity, magnetism and optics
CO3	Solve related problems in electricity, magnetism and optics using the appropriate principles
CO4	Analyze the appropriate concepts learned using the right principle and laws of electricity, magnetism and optics

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