

PROGRAM OF PHYSICS 2: ELECTRICITY AND MAGNETISM

CHAPTER I: ELECTROSTATICS

- Electrostatic charges and fields
- Electrostatic potential
- Electric field flow
- Gauss's theorem
- Electric dipole

CHAPTER II: CONDUCTORS

- Definition and properties of conductors in equilibrium
- Electrostatic pressure
- Capacitance of a conductor and a capacitor.

CHAPTER III: ELECTROKINETICS

- Electrical conductor
- Ohm's law
- Joule's law
- Electrical circuits
- Application of Ohm's law to networks
- Kirchhoff's laws.

CHAPTER IV: MAGNETOSTATICS

- Lorentz's force
- Laplace's law
- Biot and Savart's law
- Magnetic dipole.

CHAPTER IV: MAGNETIC INDUCTION