

**ELE 509 - CONSUMER ELECTRONICS
(Open Elective)**

Unit I

Audio Systems:Microphones and Loudspeakers: Carbon, Moving Coil, Cordless microphone, Direct radiating and horn loudspeaker, Multi-speaker System.

Sound Recording: Magnetic Recording, Digital Recording, optical Recording(CD system and DVD)

12 Hours

Unit II

Television Technology:principles of Monochrome TV: Elements of TV Communication System, Scanning and its need, Need of Synchronizing and blanking pulses, VSB, Picture Tube, principles of Colour Television:Primary, Secondary colours, Concept of Mixing, Colour Triangle, NTSC, PAL, SECAM, LCD and LED Television: Basic Principle and working of LCD & LED TV

Cable Television: Working of Cable TV, DTH

12 Hours

Unit III

Consumer Appliances (principle and working) : Microwave Oven, Automatic Washing Machine, Photostat machine, Digital Camera, Smart Phone.

12 Hours

Books:

- 1) Audio and Video Systems by R G Gupta, tata McGraw Hill Education Pvt. Ltd, New Delhi
- 2) Consumer Electronics by Deepak Arora, Eagle Prakashan, Jalandhar.