Unit – 1: Bio-potential electrodes and transducers
   Introduction
   Design of medical instrument
   Components of biomedical instrument system
   Electrodes
   Transducers

Unit – 2: Biomedical recorders
   Electrocardiography (ECG)
   Electroencephalography (EEG)
   Electromyography (EMG)

Unit – 3: Respiratory system measurements
   Physiology of respiratory system
   Pulmonary function analysis
   Respiratory gas analyzer

Unit – 4: Biomedical imaging systems
   X-ray and computed tomography system and applications
   NMR imaging system and applications
   Medical ultrasound imaging system
   PET scanning system

Books
1. Biomedical instrumentation and measurements – L.Cromwet, Fred J. Weibell & Erich A. Pfeiffer
2. Biomedical instrumentation – M.Arumugam
3. Handbook of biomedical instrumentation – R.S.Khandpur