

1. Subject Code: **EP-310** Course Title: **MEDICAL PHYSICS AND PHYSIOLOGICAL MEASUREMENTS**
2. Contact Hours : L : 3 T : 1 P : 0
3. Examination Duration (Hrs.) : Theory : 3 Practical : 0
4. Relative Weight : CWS : 25 PRS : 0 MTE : 25 ETE : 50 PRE : 0
5. Credits : 4
6. Semester : EVEN
7. Subject Area : DEC-3
8. Pre-requisite : Nil
9. Objective : Acquire fundamental understanding of the applications of Physics in medical
10. Details of Course:

S. No.	Contents	Contact Hours
1.	Overview of Human body - Origin of bio-potentials -ENG, EMG,ECG and EEG	12
2.	Heart and ECG Waveform - standard lead system and functional blocks - Biofluid mechanics	12
3.	Blood pressure measurement - Different blood flow meters	10
4.	Electric impedance plethysmography - photo plethysmography - pulse oximetry.	8
	<b>Total</b>	<b>42</b>

#### 11. Suggested Books

S.No.	Name of Books/ Authors	Year of Publication/ Reprint
1.	Medical Physics and Biomedical Engineering, Brown, B.H. Institute of Physics Publishing, 2. John. G. Webster,	1999
2.	Medical Instrumentation : Application and Design	2nd Edition, John Wiley

## DRAFT SCHEME OF STUDY (Year 2,3,4 B. Tech Program)