

		National Institute of Technology Meghalaya An Institute of National Importance											CURRICULUM			
Programme													Year of Regulation			
Department		Electrical Engineering											Semester			
Course Code	Course Name	Credit Structure				Marks Distribution										
		L	T	P	C	Continuous evaluation			Total							
EE101	Basic Electrical Engineering	0	0	2	1	100				100						
Course Objectives	To understand basic circuit theorems and laws	Course Outcomes	CO1	Verify the application of circuit theorems												
	To develop the skills to analyse the basic DC/AC system		CO2	Measure voltage, current, power, power factor etc. of different circuits like fluorescent, RLC series, RLC parallel												
			CO3	Calculate circuit parameters from measured values for a choke coil and transformer												
			CO4	Measure power in three phase circuits, verify star delta connection												
			CO5													
			CO6													
No.	COs	Mapping with Program Outcomes (POs)												Mapping with PSOs		
		PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
1	CO1	2	0	1	0	0	0	0	0	1	0	0	0			
2	CO2	2	0	1	0	0	0	0	0	1	0	0	0			
3	CO3	2	0	1	0	0	0	0	0	1	0	0	0			
4	CO4	2	0	1	0	0	0	0	0	1	0	0	0			
5	CO5	0	0	0	0	0	0	0	0	0	0	0	0			
6	CO6	0	0	0	0	0	0	0	0	0	0	0	0			
SYLLABUS																
No.	Content													Hours	COs	
I	To study and verify the Kirchhoff's Voltage Law and Kirchhoff's Current Law applied to D.C. circuit.													02	CO1	
II	To study and verify the Maximum Power Transfer Theorem.													02	CO1	
III	To study and measure the inductance of choke coil.													02	CO3	
IV	To study and obtain the $v-i$ characteristics of a Fluorescent Lamp.													02	CO2	
V	To study and perform amplitude, frequency and phase measurements using calibrated cathode ray oscilloscope.													02	CO2	
VI	To study the R-L-C series circuit, it is connected to an AC supply and the voltage, current, power are consumed. The relations to be verified by drawing the phasor diagram.													02	CO2	
VII	To study the R-L-C Parallel circuit, and the relations of currents and voltages in different branches. The relations to be verified by drawing the phasor diagram.													02	CO2	
VIII	To determine equivalent circuit parameters, efficiency and regulation of a single phase transformer by conducting OC and SC tests.													02	CO3	
IX	Verify the relation of phase and line value of voltage and current in 3 Phase Star and Delta balanced connection.													02	CO4	
X	Measurement and verification of 3- ϕ power in star and delta connection.													02	CO4	
Total Hours													20			