

**PROGRAMME STRUCTURE**  
**FOR**  
**DIPLOMA PROGRAMME IN**  
**ELECTRICAL ENGINEERING**  
***UNDER RATIONALISED SEMESTER SYSTEM***  
**( IMPLEMENTED FROM ACADEMIC YEAR 2020-2021 )**



**BOARD OF TECHNICAL EDUCATION, GOA STATE**

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## Directorate of Technical Education, Goa State

DIPLOMA IN ELECTRICAL ENGINEERING CURRICULUM STRUCTURE											
Semester	Code	Subjects	L	T	P	H	TH	TM	PR	TW	TOT
<b>FIRST</b>	GC102	Engineering Mathematics I	4	2	0	6	75	25	-	25	125
	GC103	Applied Physics I	3	0	2	5	75	25	-	25	125
	GC104	Applied Chemistry	3	0	2	5	75	25	-	25	125
	GC105	Basic Engineering Practice (Electrical & Mechanical)	0	0	5	5	-	-	50	75	125
	GC204	Engineering Drawing	0	0	5	5	-	-	50	50	100
				10	2	14	26				
<b>SECOND</b>	GC101	Communication Skills	0	0	2	2	-	-	25	25	50
	GC106	Basic Engineering Practice (Electronics & Computer)	0	0	4	4	-	-	50	50	100
	GC201	Engineering Mathematics II	4	2	0	6	75	25	-	25	125
	GC202	Applied Physics II	3	0	2	5	75	25	-	25	125
	GC203	Environmental Science	4	0	0	4	75	25	-	-	100
	GC205	Engineering Materials	3	0	0	3	75	25	-	-	100
			14	2	8	24					600
<b>THIRD</b>	EL301	Circuit theory	3	0	2	5	75	25	-	25	125
	EL302	Electrical Machines I	4	0	2	6	75	25	-	25	125
	EL303	Electrical Measurement & Instruments	3	0	2	5	75	25	25	25	150
	EL304	Generation & Transmission of Electrical Energy	3	0	0	3	75	25	-	-	100
	EL305	Electrical Drawing using CAD	0	0	4	4	-	-	50	50	100
	CC309	Digital Electronics	3	0	2	5	75	25	25	25	150
			16	0	12	28					750
<b>FOURTH</b>	EL401	Electrical Machines II	4	0	2	6	75	25	25	25	150
	EL402	Applied & Integrated Electronics	3	0	2	5	75	25	25	25	150
	EL404	Electronic Instrumentation System	3	0	2	5	75	25	-	25	125
	EL405	Electrical & Electronics Workshop	0	0	4	4	-	-	25	50	75
	EL407	Distribution & Utilisation of Electrical Energy	3	0	2	5	75	25	-	25	125
	CC307	Elements of Mechanical Engg.	3	0	2	5	75	25	-	25	125
			16	0	14	30					750
<b>FIFTH</b>	EL501	Switchgear & Protection	4	0	0	4	75	25	-	-	100
	EL502	Power Electronics & Drives Control	4	0	2	6	75	25	-	25	125
		Elective I	3	0	2	5	75	25	25	25	150
	CC602	Business Communication	0	0	2	2	-	-	25	25	50
	TR501	Industrial Training	-	-	4	4	-	-	30	70	GRADE
	AC101	Essence of Indian Traditional Knowledge	2	0	0	2	-	-	-	-	-
			13	0	10	23					425
	EL601	Electrical Drives	3	0	2	5	75	25	-	25	125

## Directorate of Technical Education, Goa State

<b>SIXTH</b>	EL602	Project	0	0	6	6	-	-	50	100	150
		Elective II	3	0	2	5	75	25	25	25	150
		Elective III	3	0	2	5	75	25	25	25	150
	CC502	Essentials of Entrepreneurship Development	0	0	2	2	-	-	-	25	25
	CC601	Industrial Organisation & Management	3	0	0	3	75	25	-	-	100
	AC102	Indian Constitution	2	0	0	2	-	-	-	-	-
			14	0	14	28					700
L- Lecturers T - Tutorial P - Practical H- Hours TH - Theory Marks TM - Test Marks PR - Practical Marks TW- Term Work Marks											

### Elective List

<b>Elective I</b>	
EL629	Solar and Wind Energy System
EL628	Electrical Layout & Estimation
EL632	Electrical Safety Management
EL633	Smart Grid technology

<b>Elective II</b>	
EL618	Testing & Maintenance of Electrical Machines
EL630	Energy Management
EX635	Building Automation
EL634	Instrumentation in Power Plant

<b>Elective III</b>	
EL622	Substation Practices
MC612	PLC in Automation
EX624	Consumer Electronics
EL623	Illumination Engineering