

The Electrical Power and Protection Engineering **Program Plan Study**

Level (0) - Term (1)

a. Compulsory

Code No.	Total	No. of Hours / Week			Total Credit Hours
		Lect.	Lab.	Tut.	
GEN0001	Engineering Drawing (1)	2	-	2	3
GEN0010	Industrial Chemistry	2	1	1	3
GEN0004	Mathematics (1)	2	-	2	3
GEN0008	Physics (1)	2	1	1	3
GEN0006	Mechanics (1)	2	-	2	3
GEN0011	Computer Technology	2	2	-	3
		12	4	8	18

Level (0) - Term (2)

a. Compulsory

Code No.	Total	No. of Hours / Week			Total Credit Hours
		Lect.	Lab.	Tut.	
GEN0002	Engineering Drawing (2)	2	-	2	3
GEN0003	Technical English	2	-	-	2
GEN0005	Mathematics (2)	2	-	2	3
GEN0009	Physics (2)	2	1	1	3
GEN0007	Mechanics (2)	2	-	2	3
GEN0012	Human Rights	2	-	-	2
MEC0001	Production Technology	2	1	-	2
		14	2	7	18

Level (1) - Term (1)

a. Compulsory

Code No.	Total	No. of Hours / Week			Total Credit Hours
		Lect.	Lab.	Tut.	
GEN1901	Mathematics (3)	2	-	2	3
GEN1902	Civil Engineering	2	-	-	2
GEN1903	Technical Report Writing	2	-	-	2
MEC1901	Thermodynamics	2	-	2	3
POW1901	Electromagnetic Fields	2	-	2	3
POW1902	Electrical Technology	2	2	-	3
		12	2	6	16

Level (1) - Term (2)

a. Compulsory

Code No.	Total	No. of Hours / Week			Total Credit Hours
		Lect.	Lab.	Tut.	
GEN1904	Mathematics (4)	2	-	2	3
POW1903	Electrical Circuits (1)	3	-	2	4
GEN1905	Probability and Statistics	2	-	2	3
GEN1906	Engineering Economy	2	-	-	2
GEN1907	Projects Management	2	-	-	2
GEN1908	Communication and Presentation Skills	2	-	-	2
		13	0	6	16

Level (2) - Term (1)

a. Compulsory

Code No.	Total	No. of Hours / Week			Total Credit Hours
		Lect.	Lab.	Tut.	
POW2901	Electrical Circuits (2)	2	-	2	3
ELC2901	Electronic Circuit	2	1	1	3
GEN2901	Environmental Engineering	2	-	-	2
POW2902	Elements of power system	3	-	-	3
GEN2902	Mathematics (5)	2	-	2	3
GEN2903	Marketing	2	-	-	2
		13	1	5	16

Level (2) - Term (2)

b. Compulsory

Code No.	Total	No. of Hours / Week			Total Credit Hours
		Lect.	Lab.	Tut.	
POW2903	Power Stations	2	-	2	3
POW2904	Electrical Machines (1)	2	1	2	3
POW2905	Circuit Analysis Programming	3	-	2	4
POW2906	Industrial Electrical Measurements	3	1	2	4
POW2907	Electrical safety	2	-	-	2
		12	2	8	16

Level (3) - Term (1)

a. Compulsory

Code No.	Total	No. of Hours / Week			Total Credit Hours
		Lect.	Lab.	Tut.	
POW3901	Basic Protection Systems	2	1	1	3
POW3902	Electrical Machines (2)	3	1	1	4
POW3903	Automatic Control	2	1	2	3
POW3904	Power Electronics	2	1	1	3
	Elective Course A (1)	2	-	-	2
		11	4	5	15

b. Elective Course A – required number: (One)

Code No.	Total	No. of Hours / Week			Total Credit Hours
		Lect.	Lab.	Tut.	
ELC3901	Signal Processing	2	-	-	2
POW3905	Renewable Energy Systems	2	-	-	2
POW3906	Power System Planning	2	-	-	2

Level (3) - Term (2)

a. Compulsory

Code No.	Total	No. of Hours / Week			Total Credit Hours
		Lect.	Lab.	Tut.	
POW3907	Power system Analysis	2	-	1	2
POW3908	Substation Operation and Control	3	-	-	3
POW3909	PLC And SCADA	2	2	-	3
POW3910	High Voltage Engineering	2	2	-	3
POW3911	Seminar (1)	2	-	-	2
	Elective Course B (2)	2	-	-	2
		13	4	1	15

b. Elective Course B – required number: (One)

Code No.	Total	No. of Hours / Week			Total Credit Hours
		Lect.	Lab.	Tut.	
POW3912	Power Quality	2	-	-	2
POW3913	Power System Distribution	2	-	-	2
ELC 3902	Communication Systems	2	-	-	2

Level (4) - Term (1)

a. Compulsory

Code No.	Total	No. of Hours / Week			Total Credit Hours
		Lect.	Lab.	Tut.	
POW4901	Electrical Drive	2	1	1	3
POW4902	Advanced Protection Systems	2	2	1	3
POW4903	Intelligent Control Systems	2	-	2	3
	Elective Course C (3)	3	-	-	3
POW4907	Graduation Project (1)	2	-	-	2
		11	3	4	14

b. Elective Course C – required number: (One)

Code No.	Total	No. of Hours / Week			Total Credit Hours
		Lect.	Lab.	Tut.	
POW4904	Switchgears	3	-	-	3
POW4905	Wide Area Measurements and Protection	3	-	-	3
POW4906	Integration of Distributed Generation	3			3

Level (4) - Term (2)

a. Compulsory

Code No.	Total	No. of Hours / Week			Total Credit Hours
		Lect.	Lab.	Tut.	
POW4908	Digital Relaying	2	2	1	3
POW4909	Distributed Control Systems	2	2	1	3
POW49010	Seminar (2)	2	-	-	2
	Elective Course D (4)	3	-	-	3
	Elective Course E (5)	2	-	-	2
POW49017	Graduation Project (2)	3	-	-	3
		14	4	2	16

b. Elective Course D – required number: (One)

Code No.	Total	No. of Hours / Week			Total Credit Hours
		Lect.	Lab.	Tut.	
POW4911	Operation and Control of Renewable Energy Systems	3	-	-	3
POW4912	Power System Troubleshooting and Maintenances	3	-	-	3
POW4913	Advanced Drive Systems	3	-	-	3

c. Elective Course E – required number: (One)

Code No.	Total	No. of Hours / Week			Total Credit Hours
		Lect.	Lab.	Tut.	
POW4914	Smart Grid Protection	2	-	-	2
POW4915	Power system operation and control	2	-	-	2
POW4916	Power System Computer Aided Analysis	2	-	-	2

The Electrical Power And Protection Engineering Program Course Flow Chart

Elective A
Elective B
Elective C
Elective D
Elective E

