

**STRUCTURE OF THE PROGRAMME FOR THE BACHELORS DEGREE IN ELECTRICAL ENGINEERING (B.Eng. Electrical)**

*NB: Follow the key at the last row of the table to identify the various specializations*

**YEAR TWO**

Course code	Course Title	Credit value	Status	L	T	P	Prerequisite
<b>FIRST SEMESTER</b>							
MTH 2101	Numerical methods	4	C	30	5	5	
MTH 2102	Topics in Engineering Mathematics	3	C	25	0	5	
CSC 2101	Computer Programming for Engineers	2	C	15	0	5	
EEE 2101	Electrical Machines	4	C	30	5	5	
EEE 2102	Physical Electronics	3	C	25	0	5	
EEE 2103	Computer Architecture	3	C	20	0	10	
EEE 2104	Analogue Electronics	3	C	20	0	10	
EEE 2105	Telecommunication Principles	4	C	30	5	5	
EEE 2106	Electrical Machines Labs						
EEE 2106	Analogue Electronics	2	C	10	0	10	
EEE 2107	Labs	2	C	10	0	10	
<b>TOTAL</b>		<b>30</b>		<b>215</b>	<b>15</b>	<b>70</b>	
<b>SECOND SEMESTER</b>							
MTH 2201	Time Series and Statistics	4	C	30	5	5	
ENR 2201	Computer Aided Design	3	C	20	5	5	
ENR 2202	Law and Management	2	C	15	0	5	
EEE 2201	Digital Electronics	4	C	30	5	5	
EEE 2202	Measurement and Instrumentation	4	C	30	05	5	
	Electromagnetic Fields						

EEE 2203	and Waves Control Systems I	4	C	30	05	5	
EEE 2204	Electrical and Electronics Workshop	3	C	20	5	5	
EEE 2205	Telecommunication Labs	1	C		0	10	
EEE 2206	Partial Differential Equations	1	C		0	10	
MAT 2202	Sport	3	C	25	5	0	
SPT 2004		1	C		0	10	
<b>TOTAL</b>		<b>30</b>		<b>200</b>	<b>35</b>	<b>65</b>	

### YEAR THREE

Course Code	Course Title	Credit value	Status	L	T	P	Prerequisite
<b>FIRST SEMESTER</b>							
ENR 3101	Occupational Safety and Health	3	C	20	0	10	
EEE 3101	Powers Systems I	4	C	30	5	5	
EEE 3102	Digital Systems	4	C	30	5	5	
EEE 3103	Microprocessors & Microcontrollers	4	C	30	5	5	
EEE 3104	Energy Economics and Environment	3	C	25	0	5	
EEE 3105	Computer System and Simulation	3	C	25	0	5	
EEE 3106	Signal Transmission						
EEE 3106	Communication Systems	4	C	30	5	5	
EEE 3107	Digital Systems Labs	3	C	20	0	10	
EEE 3108		2	C	15	0	5	
<b>TOTAL</b>		<b>30</b>		<b>225</b>	<b>20</b>	<b>55</b>	
<b>SECOND SEMESTER</b>							

ENR 3201	Industrial Training	30	C	10	0	290	
<b>TOTAL</b>		<b>30</b>		<b>10</b>	<b>0</b>	<b>290</b>	

#### YEAR FOUR

Course Code	Course Title	Credit value	Status	L	T	P	Prerequisite
<b>FIRST SEMESTER</b>							
ENR 4101	Engineering Economy and Project Planning	3	C	25	0	5	
ENR 4102	Technical Communication	2	C	15	0	5	
ENR 4103	Quality Control Engineering	3	C	25	0	5	
EEE 4101	Control Systems II	2	C	15	0	5	
EEE 4102	Industrial Automation	3	C	20	0	10	
EEE 4103	Electrical Power Distribution	3	C	20	0	10	
EEE 4104	Final Year Project I	4	C	5	5	10	
EEE 4105	Microprocessors Labs	2	C	10	5	30	
		<b>24</b>		<b>135</b>	<b>10</b>	<b>80</b>	
<b>ELECTIVES (Choose two)</b>							
EEE 4106	Microwave Engineering*	4	E	30	5	5	
EEE 4107	Digital Signal Processing*	4	E	30	5	5	
EEE 4108	Power Systems II**	4	E	30	5	5	
EEE 4109	Electrical Machine Design**	4	E	30	5	5	
EEE 4110	Radio Wave Propagation***	4	E	30	5	5	
EEE 4111	Telecommunications Engineering***	4	E	30	5	5	
		<b>8</b>		<b>60</b>	<b>10</b>	<b>10</b>	

<b>TOTAL</b>		<b>30</b>		<b>195</b>	<b>20</b>	<b>85</b>	
<b>SECOND SEMESTER</b>							
ENR 4201	System Analysis	<b>3</b>	<b>C</b>	<b>25</b>	<b>0</b>	<b>5</b>	
EEE 4201	Programmable Logic Controllers	<b>3</b>	<b>C</b>	<b>25</b>	<b>0</b>	<b>5</b>	
EEE 4202	Power Electronics	<b>3</b>	<b>C</b>	<b>25</b>	<b>0</b>	<b>5</b>	
EEE 4203	Industrial Electronics	<b>3</b>	<b>C</b>	<b>25</b>	<b>0</b>	<b>5</b>	
EEE 4204	Expert Systems & Neural Networks	<b>3</b>	<b>C</b>	<b>25</b>	<b>0</b>	<b>5</b>	
EEE 4205	Topics in Electrical Engineering	<b>3</b>	<b>C</b>	<b>25</b>	<b>0</b>	<b>5</b>	
EEE 4206	Final Year Project II	<b>4</b>	<b>C</b>	<b>5</b>	<b>0</b>	<b>35</b>	
	<b>ELECTIVES (Choose two)</b>	<b>22</b>		<b>155</b>		<b>65</b>	
	Integrated Circuits*						
EEE 4207	Active and Passive Network Synthesis*	<b>4</b>	<b>E</b>	<b>30</b>	<b>0</b>	<b>10</b>	
EEE 4208	High Voltage Engineering**	<b>4</b>	<b>E</b>	<b>30</b>	<b>0</b>	<b>10</b>	
EEE 4209	FACTS Devices**	<b>4</b>	<b>E</b>	<b>30</b>	<b>0</b>	<b>10</b>	
EEE 4210	Multimedia Systems***	<b>4</b>	<b>E</b>	<b>30</b>	<b>0</b>	<b>10</b>	
EEE 4211	Remote Control and Telemetry***	<b>4</b>	<b>E</b>	<b>30</b>	<b>0</b>	<b>10</b>	
EEE 4212		<b>4</b>	<b>E</b>	<b>30</b>	<b>0</b>	<b>10</b>	
		<b>8</b>		<b>60</b>	<b>0</b>	<b>20</b>	
	* Specialist in Electronics						
	** Specialist in Electric Power						
	*** Specialist in Telecommunications						
<b>TOTAL</b>		<b>30</b>		<b>215</b>	<b>0</b>	<b>85</b>	