Scheme for F.Y.B.Tech. In Electrical Engineering with Minor in [****], (Semester -I) R23 Academic Year 2025-26

Sr. No.	Course Name	Course Code	Course Plan In Hrs/week			SL in Hrs/swm	Credits	In semester Evaluation		End Semester Evaluation		End Semester Weightage	Total Points	
			L	T	P			Mid Term Points	Mid Term Time Hrs	IE/ TW	Points	Time Hrs		
Theory Courses													
1	Differential Calculus & Complex Numbers (DCCN)	BS-BTE101	2	1	0	48	3	30	1.5	20	100	3	50%	100
2	Engineering Chemistry	BS-BTE102	2	0	0	32	2	30	1.5	20	100	3	50%	100
3	Engineering Mechanics	ES-BTE101	2	0	0	32	2	30	1.5	20	100	3	50%	100
4	Engineering Graphics	ES-BTE102	2	0	0	32	2	30	1.5	20	100	3	50%	100
5	Biology for Engineers	BS-BTE103	1	0	0	16	1	30	1.5	20	50	2	50%	100
6	Basic Electrical Engineering I	ES-BTE103	2	0	0	32	2	30	1.5	20	100	3	50%	100
	Laboratory Courses													
7	Engineering Chemistry Lab.	BS-BTE151	0	0	2	2	1	--	--	25	25		100%	50
8	Engineering Mechanics Lab.	ES-BTE151	0	0	2	2	1	--	--	25	25		100%	50
9	Engineering Graphics Lab.	ES-BTE152	0	0	2	2	1	--	--	25	25		100%	50
	Vocational and Ability Enhancement Course													
10	Design Thinking and Innovation	SE-BTE101	2	1	0	48	3	30	1.5	20	50	2	50%	100
11	Workshop Practice	VS-BTE101	0	0	2	2	1	--	--	25	25	--	100%	50
	Value Education Course													
12	Ethics, Values and Life Skills	VE-BTE101	2	0	0	32	2	30	1.5	20	50	2	50%	100
	Co-Curricular Course/ Activity													
13	Co-curricular course/ activity	CC-BTE101	1	0	0	16	1	30	1.5	20		$$$		50
	Total		**16**	**2**	**9**		**22**							**1050**

L: Lecture, P: Practical, T Tutorial, IE: Internal Evaluation SL: Self Learning

1 credit corresponds to 30 Hours of student engagement in a semester. Apart from actual contact hours (L T P), the remaining hours are used for self-learning (SL) by students

Scheme for F.Y.B.Tech. In Electrical Engineering with Minor in [****], (Semester - II) R23 Academic Year 2025-26

Sr. No.	Course Name	Course Code	Course Plan In Hrs/week			SL in Hrs/ sem	Credits	In semester Evaluation		End Semester Evaluation		End Semester Weightage	Total Points	
			L	T	P			Mid Term Points	Mid Term Time Hrs	IE/ TW	Points	Time Hrs		
Theory Courses														
1	Integral Calculus and Differential Equations (ICDN)	BS-BTE201	2	1	0	48	3	30	1.5	20	100	3	50%	100
2	Engineering Physics	BS-BTE202	2	0	0	32	2	30	1.5	20	100	3	50%	100
3	Basic Electrical Engineering - II	ES-BTE201	2	0	0	32	2	30	1.5	20	100	3	50%	100
4	Electronic Circuits	PC-BTE201	3	0	0	48	3	30	1.5	20	100	3	50%	100
Laboratory Courses														
5	Engineering Physics Lab.	BS-BTE251	0	0	2	2	1	--	--	25	25	--	100%	50
6	Basic Electrical Engineering Lab.	ES-BTE251	0	0	2	2	1	--	--	25	25	--	100%	50
7	Electronic Circuits Lab.	PC-BTE251	0	0	2	2	1	--	--	25	25	--	100%	50
Vocational and Skills Enhancement														
8	Electrical Workshop Practice	VS-BTE201	0	0	2	2	1	--	--	25	25	--	100%	50
9	Programming for Problem Solving	SE-BTE201	0	0	4	64	2	30	1.5	20	100	3	100%	100
Ability Enhancement Course														
10	Communication Skills	AE-BTE201	2	0	1	48	3	30	1.5	20	100	3	50%	100
Indian Knowledge System														
11	Indian traditional Knowledge	IK-BTE201	2	0	0	32	2	30	1.5	20	50	2	50%	100
Co-Curricular Course/ Activity														
12	Co-curricular course/activity	CC-BTE201	1	0	0	16	1	30	1.5	20		$$$		50
	Total		14	1	13		22							950

L: Lecture, P: Practical, T Tutorial, IE: Internal Evaluation SL: Self Learning

1 credit corresponds to 30 Hours of student engagement in a semester. Apart from actual contact hours (L T P), the remaining

hours are used for self-learning (SL) by students.

Evaluation for R23 :

1. **The Evaluation of any course shall be such that all Course Outcomes are appropriately mapped.**

2. Mid term: The courses under the category "Theory courses", the evaluation is based on Mid Term of 30 points for 1.5 hours duration. Tentatively the first four modules of the course content will be covered in Mid Term. Any change in the same will be informed by the course instructor. The courses under the category "Skill Enhancement", "Value Education", the evaluation is based on activity (Presentation, Test, Mini project, Field project, Practical Examination) of 30 points each.

3. IE: Internal Evaluation will be carried out by the course instructor for 20 points. It is the continuous evaluation throughout the semester. The evaluation will be based on minimum three of the following activities decided by course instructor. The maximum points that can be assigned to one activity will be 07. The course instructor needs to inform the students and head of the department about the activities those will be considered for IE and the points assigned to them in first week of semester. The course instructor will submit the internal evaluation points (out of 20 with activity wise break up) to examination section before the beginning of End Semester examination. List of Activities: 1. Class Involvement 2. Assignments 3. Problem Solving 4. Mini project 5. Quizzes 6. Presentation 7. Oral.

4. End semester evaluation: The course under the category "Theory courses", the evaluation is based on End semester examination of 100 points. The end semester examination will cover all the modules of the course content. The courses under the category "Skill Enhancement", "Value Education", the evaluation is based on activity (Presentation, Test, Mini project, Field project, Practical Examination) of 50/100 points.

5. The evaluation of the laboratory courses include internal evaluation IE of 25 points and End semester evaluation of 25 points. The internal evaluation is based on [10 points: Laboratory Attendance, 15 points: Laboratory work] and End semester evaluation is based on [25 points: Quizes/ Presentation/ Practical Examination/ Mini project/Oral may be any two activities]

6. The co-curricular course credits in semester VIII can be earned through participation in various activities during his/ her graduation. The co-curricular course credits are not considered for CPI calculation.

7. The evaluation of Field project/ Project/ Internship shall be as mentioned in Academic Rules.

8. $$$$ The evaluation for Co-curricular course/ activity shall be defined by course instructor or activity evaluator. The evaluation for 50 points will be carried out throughout the semester and the grade Pass/ No pass will be awarded which will not be considered for CPI calculation.   **Note: Refer Academic and Examination rules and regulations for further details.**

UG certificate:

The student who wish to Exit after first year and willing to get " UG Certificate" needs to earn additional 6 credits through

1. **Skill Enhancement course 1 [SE-BTC202] : 3 credits
2. **Skill Enhancement course 2 [SE-BTC203] : 3 credits **

The courses should be completed through SWAYAM/ NPTEL defined by the department

[****] Multidisciplinary Minor
The institute will offer Multidisciplinary Minor from the following list based on the resources available. Each Minor is designed for 14 credits.. The students need to select the Minor in the beginning of semester IV.

- Minor in Robotics
- Minor in Management
- Minor in Sustainable Engineering and Management
- Minor in Industry 4.0 technolog
- Minor in electronics
- Minor in AIML and Data Science