



SANDIP
UNIVERSITY

School of Engineering & Technology
Department of Electrical & Electronics Engineering

This is to certify that the Syllabus Handbook of B.Tech (Electrical Engineering) has been reviewed and endorsed by the Board of Studies, Academic Council and Governing Body. The syllabus has been thoroughly examined and is in alignment with the academic and professional standards set forth by the University and relevant regulatory bodies.

It is hereby recommended for implementation with effect from the academic year 2025-26. This certificate serves as formal approval of the contents of the handbook and authorizes its distribution to students and faculty.



Programme Name: Bachelor of Technology in Electrical Engineering
Semester – III **Batch:** A.Y 2025-2026 onwards

Sr. No	Course Code	Course Type	Course Name	Teaching Scheme (Hrs./Week)				Examination Scheme				Total Marks
				L	T	P	C	Formative Assessment CIA		Summative Assessment ESE		
								Course	Laboratory	Course	Laboratory	
1	NYEE301	PCC	Electrical Machines I	2	1	--	3	50	--	100	--	100
2	NYEE302	PCC	Electrical Measurements and Instrumentation	2	1	--	3	50	--	100	--	100
3	NYEE303	PCC	Energy Resources and Generation	2	--	--	2	50	--	100	--	100
4	NYEE311	PCC	Electrical Machine I Laboratory	--	--	2	1	--	50	--	50*	100
5	NYEE312	PCC	Electrical Measurements and Instrumentation Laboratory	--	--	2	1	--	50	--	50*	100
6	--	OE	Open Elective I #	3	--	--	3	50	--	100	--	100
7	--	MDM	Minor course I #	2	--	--	2	50	--	100	--	100
8	NLWV01	VEC (HSSM)	The Constitution & Human Rights	2	--	--	2	50	--	100	--	100
9	NYEE313	VSEC	Electronics Devices and Circuits Laboratory	--	--	4	2	--	50	--	50*	100
10	NHSA11	AEC (HSSM)	Key Competencies for Career Growth	--	--	4	2	--	50	--	50*	100
11	NYEE314	CEP/FP	Community Engagement Project*/Field Project*	--	--	4	2	--	50	--	50*	100
			TOTAL	13	02	16	23	300	250	600	250	1100
Value Added Course												
12	---	VAC	Installation & Repair of Electrical Components & Devices	--	--	2	--	--	--	--	--	--

- Note: For Open Elective I refer Annexure II and For Minor Course (MDM) refer Annexure III**

CIA: Continuous Internal Assessment L: Theory Lecture T: Tutorial P: Practical ESE: End Semester Exam	*: Oral Examination PCC: Program Core course PEC: Programme Elective Core OE: Open Elective VAC: Value Added Courses AEC :Ability Enhancement curses CEP/FP: Community Encouragement Project/Field project VSEC: Vocational and Skill Enhancement Course MDM: Multidisciplinary minor course	Formative Assessment		
		CIA	Weightage	Description
		CIA 1	10%	Home Assignment
		CIA 2	20%	Written Exam
		CIA 3	10%	Seminar Presentation
		CIA 4	10%	- Behavioral Attitude + General Discipline (5%) - Theory + practical attendance 5%)
		TOTAL	50%	



Programme Name: Bachelor of Technology in Electrical Engineering
Semester – IV **Batch:** A.Y 2025-2026 onwards

Sr. No	Course Code	Course Type	Course Name	Teaching Scheme (Hrs./Week)				Examination Scheme				Total Marks
				L	T	P	C	Formative Assessment CIA		Summative Assessment ESE		
								Course	Laboratory	Course	Laboratory	
1	NYEE401	PCC	Electrical Circuits	2	1	--	3	50	--	100	--	100
2	NYEE402	PCC	Numerical Methods and its Applications in Electrical Engineering	2	1	--	3	50	--	100	--	100
3	NYEE403	PCC	Power System Analysis	3	--	--	3	50	--	100	--	100
4	NYEE411	PCC	Electrical Circuits Laboratory	--	--	2	1	--	50	--	50*	100
5	NYEE412	PCC	Numerical Methods and its Applications in Electrical Engineering Laboratory	--	--	2	1	--	50	--	50*	100
6	--	OE	Open Elective-II #	3	--	--	3	50	--	100	--	100
7	--	MDM	Minor course 2 #	3	--	--	3	50	--	100	--	100
8	NYEE413	AEC (HSSM)	Reasoning and Aptitude Development	--	--	4	2	--	50	--	50*	100
9	NHSA12	VEC (HSSM)	Strategic Communication for Professionals	--	--	4	2	--	50	--	50*	100
10	NYEE414	VSEC	Introduction to Energy Audit	--	--	2	1	--	50	--	50*	100
			TOTAL	13	02	14	22	250	250	500	250	1000
Value Added Course												
11	--	VAC	Object Oriented Programming (Python)	--	--	2	--	--	--	--	--	--

- Note: For Open Elective I refer Annexure II and For Minor Course (MDM) refer Annexure III**

Students exiting the Second Year Programme after securing minimum 80 credits will be awarded UG Diploma in the relevant Discipline /Subject provided they secure additional 8 credits in skill-based vocational courses (skill-based courses, internship, mini projects etc) offered during summer vacation after the second year.

				Formative Assessment		
CIA: Continuous Assessment L: Theory Lecture T: Tutorial P: Practical ESE: End Semester Exam	Internal	*: Oral Examination PCC: Program Core course PEC: Programme Elective Core OE: Open Elective VAC: Value Added Courses AEC :Ability Enhancement course CEP/FP: Community Encouragement Project/Field project VSEC: Vocational and Skill Enhancement Course MDM: Multidisciplinary minor course		CIA	Weightage	Description
				CIA 1	10%	Home Assignment
				CIA 2	20%	Written Exam
				CIA 3	10%	Seminar Presentation
				CIA 4	10%	- Behavioral Attitude + General Discipline (5%) - Theory + practical attendance 5%)
				TOTAL	50%	



Programme Name: Bachelor of Technology in Electrical Engineering
Semester – V **Batch:** A.Y 2025-2026 onwards

Sr. No	Course Code	Course Type	Course Name	Teaching Scheme (Hrs./Week)				Examination Scheme				Total Marks
				L	T	P	C	Formative Assessment CIA		Summative Assessment ESE		
								Course	Laboratory	Course	Laboratory	
1	NYEE501	PCC	Power Electronics	3	--	--	3	50	--	100	--	100
2	NYEE502	PCC	Electrical Machine II	3	--	--	3	50	--	100	--	100
3	NYEE503	PCC	Control System	3	--	--	3	50	--	100	--	100
4	NYEEE01-04	PEC	Program Elective I	3	--	--	3	50	--	100	-	100
5	NYEE511	PCC	Power Electronics Laboratory	--	--	2	1	--	50	--	50*	100
6	NYEE512	PCC	Electrical Machine II Laboratory	--	--	2	1	--	50	--	50*	100
7	--	MDM	Minor course 3 #	4	--	--	4	50	--	100	--	100
8	--	OE	Open Elective-III	2	--	--	2	50	--	100	--	100
9	NHSA13	AEC (HSSM)	Essential Aptitude Skills	--	--	4	2	--	50	--	50*	100
10	NYEE513	VSEC	Control System Laboratory	--	--	2	1	--	50	--	50*	100
			TOTAL	18	00	10	23	300	200	600	200	1000
Value Added Course												
11	--	VAC	Skill based Laboratory	--	--	2	--	--	--	--	--	--

- Note: For Open Elective I refer Annexure II and For Minor Course (MDM) refer Annexure III**

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		CIA	Weightage	Description
		CIA 1	10%	Home Assignment
		CIA 2	20%	Written Exam
		CIA 3	10%	Seminar Presentation
		CIA 4	10%	- Behavioral Attitude + General Discipline (5%) - Theory + practical attendance 5%)
		TOTAL	50%	

Chairperson, BOS
EEED Engineering, SOET

Associate Dean Engineering
SOET, SUN

Associate Dean
Academics



Programme Name: Bachelor of Technology in Electrical Engineering
Semester – VI **Batch:** A.Y 2025-2026 onwards

Sr. No	Course Code	Course Type	Course Name	Teaching Scheme (Hrs./Week)				Examination Scheme				Total Marks
				L	T	P	C	Formative Assessment CIA		Summative Assessment ESE		
								Course	Laboratory	Course	Laboratory	
1	NYEE601	PCC	Electrical Machine Design	3	--	--	3	50	--	100	--	100
2	NYEE602	PCC	Power System Operation and Control	3	--	--	3	50	--	100	--	100
3	NYEE603	PCC	Electric Drives and Control	3	--	--	3	50	--	100	--	100
4	NYEEE05-08	PEC	Program Elective II	3	--	--	3	50	--	100	--	100
5	NYEEE09-12	PEC	Program Elective III	3	--	--	3	50	--	100	--	100
6	NYEE611	PCC	Electrical Machine Design Laboratory	--	--	2	1	--	50	--	50*	100
7	NYEE612	PCC	Power System Operation and Control Laboratory	--	--	2	1	--	50	--	50*	100
8	--	MDM	Minor course 3 #	3	--	--	3	50	--	100	--	100
9	NHSA14	AEC (HSSM)	Employability Skills and Career Advancement	--	--	4	2	--	50	--	50	100
10	NYEE613	VSEC	Electrical Panel Designing	--	--	4	2	--	50	--	50*	100
			TOTAL	18	00	12	24	300	200	600	200	1000
Value Added Course												
11	--	VAC	Industrial Automation	--	--	2	--	--	--	--	--	--

- **Note: For Open Elective I refer Annexure II and For Minor Course (MDM) refer Annexure II**

Students exiting the 3-year UG program will be awarded B.Voc. in the relevant Discipline /Subject upon securing minimum 120 credits with additional 8 credits in skill-based vocational courses (skill-based courses, internship, mini projects etc.) offered during summer vacation after the sixth semester.

CIA: Continuous Internal Assessment L: Theory Lecture T: Tutorial P: Practical ESE: End Semester Exam	Formative Assessment		
	CIA	Weightage	Description
	CIA 1	10%	Home Assignment
	CIA 2	20%	Written Exam
	CIA 3	10%	Seminar Presentation
	CIA 4	10%	- Behavioral Attitude + General Discipline (5%) - Theory + practical attendance 5%)
	TOTAL	50%	



Programme Name: Bachelor of Technology in Electrical Engineering
Semester – VII **Batch:** A.Y 2025-2026 onwards

Sr. No	Course Code	Course Type	Course Name	Teaching Scheme (Hrs./Week)				Examination Scheme				Total Marks
				L	T	P	C	Formative Assessment CIA		Summative Assessment ESE		
								Course	Laboratory	Course	Laboratory	
1	NYEE701	PCC	Switchgear and Protection	2	1	--	3	50	--	100	--	100
2	NYEE702	PCC	Electric Vehicles	2	--	--	2	50	--	100	--	100
3	NYEEE13-16	PEC	Program Elective IV	2	--	--	2	50	--	100	--	100
4	NYEE711	PCC	Switchgear and Protection Laboratory	--	--	2	1	--	50	--	50*	100
5	--	MDM	Minor course 4 #	3	--	--	3	50	--	100	--	100
6	NYEE712	INT/OJT*	INTERNSHIP/OJT#	--	--	--	12	--	50	--	50*	100
7	NHSA15	AEC (HSSM)	Corporate Readiness and Entrepreneurial Excellence	--	--	4	2	--	50	--	50*	100
			TOTAL	09	01	06	25	200	150	400	150	700
Value Added Course												
8	--	VAC	Solar Energy Technologies	--	--	2	--	--	--	--	--	--

- Note: For Open Elective I refer Annexure II and For Minor Course (MDM) refer Annexure III**

				Formative Assessment		
CIA: Continuous Assessment L: Theory Lecture T: Tutorial P: Practical ESE: End Semester Exam	Internal	#: Internship for 45 days. *: Oral Examination PCC: Program Core course PEC: Programme Elective Core OE: Open Elective VAC: Value Added Courses AEC :Ability Enhancement course CEP/FP: Community Encouragement Project/Field project VSEC: Vocational and Skill Enhancement Course MDM: Multidisciplinary minor course		CIA	Weightage	Description
				CIA 1	10%	Home Assignment
				CIA 2	20%	Written Exam
				CIA 3	10%	Seminar Presentation
				CIA 4	10%	- Behavioral Attitude + General Discipline (5%) - Theory + practical attendance 5%)
				TOTAL	50%	

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Programme Name: Bachelor of Technology in Electrical Engineering
Semester – VIII **Batch:** A.Y 2025-2026 onwards

Sr. No	Course Code	Course Type	Course Name	Teaching Scheme (Hrs./Week)				Examination Scheme				Total Marks
				L	T	P	C	Formative Assessment CIA		Summative Assessment ESE		
								Course	Laboratory	Course	Laboratory	
1	NYEE801	PCC	HVDC and FACTs Controller	3	1	--	4	50	--	100	--	100
2	NYEE802	PCC	Soft Computing Techniques	2	1	--	3	50	--	100	--	100
3	NYEE803	ELC	Research Methodology	4	--	--	4	--	50	--	50	100
4	NYEEE17-20	PEC	Program Elective V	3	--	--	3	50	--	100	--	100
5	NYEEE21-24	PEC	Program Elective VI	3	--	--	3	50	--	100	--	100
6	--	MDM	Minor course 4 #	2	--	--	2	50	--	100	--	100
7	NYEE811	CEP/FP	Project	--	--	8	4	--	50	--	100*	100
			TOTAL	17	02	08	23	250	100	500	150	700
Value Added Course												
8	--	VAC	IPR and Patenting for Engineers and Innovators	--	--	2	--	--	--	--	--	--

- Note: For Open Elective I refer Annexure II and For Minor Course (MDM) refer Annexure III**

				Formative Assessment		
CIA: Continuous Assessment L: Theory Lecture T: Tutorial P: Practical ESE: End Semester Exam	Internal	*: Oral Examination PCC: Program Core course PEC: Programme Elective Core OE: Open Elective VAC: Value Added Courses AEC :Ability Enhancement course CEP/FP: Community Encouragement Project/Field project VSEC: Vocational and Skill Enhancement Course MDM: Multidisciplinary minor course ELC: Experiential Learning Course		CIA	Weightage	Description
				CIA 1	10%	Home Assignment
				CIA 2	20%	Written Exam
				CIA 3	10%	Seminar Presentation
				CIA 4	10%	- Behavioral Attitude + General Discipline (5%) - Theory + practical attendance 5%)
				TOTAL	50%	

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