

## Course Descriptions

### Program Curriculum:

The program curriculum is designed by Board of technical education Uttar Pradesh (BT.E.U.P) Lucknow and same is being adherence by the institute.

The curriculum is categorized under different domains such as

1. Basic Science Engineering
2. Humanity Science
3. Engineering Science
4. Professional Core
5. Industrial Training
6. Projects
7. Elective

The curriculum is reproduced as table 1.1

**Table 1.1** Program Curriculum for assessment year 2020-21 & 2021-22 as per BTEUP

	Subject Code	Course Code	Subject Name	Lecture (L)	Tutorial (T)	Practical (P)	Credits	Total Marks
Basic Science Engineering	328102	C102	Applied Mathematics -1	5	0	0	4	70
	328103	C103	Applied Physics -1	5	0	2	5	100
	328104	C104	Applied Chemistry	5	0	2	5	100
	328201	C111	Applied Mathematics –II	5	0	0	4	70
	328202	C112	Applied Physics-II	5	0	2	5	100
	328301	C201	Applied Mathematics III	5	0	0	4	70

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<b>Humanity Science</b>	32810 1	C101	Communication Skill-1	4	0	2	4	100
	32840 1	C211	Communication Skill- II	4	0	2	4	100
	32842 5	C221	Universal Human Values	2	0	1	1	50
	32850 1	C301	Industrial Management And Entrepreneurship Development	5	0	0	4	70
	32815 2	1st Semester	Student Centered Activities	0	0	1	1	30
	32825 2	2 <sup>nd</sup> Semester		0	0	4	1	30
	32835 2	3rd Semester		0	0	3	2	30
	32845 2	4th Semester		0	0	1	1	30
	32855 2	5th Semester		0	0	6	2	30
	32865 2	6th Semester		0	0	4	2	30
<b>Engineering Science</b>	32810 5	C105	Engineering Drawing-I	0	0	8	2	100
	32812 4	C109	Basics Of Information Technology	0	0	6	2	100
	32812 5	C110	General Workshop Practice-1	0	0	8	2	100
	32820 4	C114	Basics Of Mechanical And Civil Engineering	5	0	2	5	100
	32820 5	C115	Analog Electronics	4	0	4	5	100

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	32822 5	C116	General Workshop Practice-II	0	0	8	2	100
	32830 6	C206	Environmental Studies	3	0	2	3	100
	32840 6	C216	Energy Conservation	3	0	2	3	100
<b>Professional Core</b>	32820 3	C113	Basic Electrical Engineering	5	0	4	5	100
	32830 2	C202	Electrical Instrumentation And Measurement	6	0	4	6	130
	32830 3	C203	Electrical And Electronics Engineering Materials	6	0	0	5	70
	32830 4	C204	Digital Electronics	5	0	4	5	130
	32830 5	C205	Electrical Machine - I	6	0	4	6	130
	32840 2	C212	Industrial Electronics And Control	5	1	4	6	130
	32840 3	C213	Electrical Design, Drawing And Estimating-I	3	0	8	5	130
	32840 4	C214	Power Plant Engineering	5	0	0	4	70
	32840 5	C215	Transmission And Distribution Of Electrical Power	6	1	0	5	70
	32850 2	C302	Switchgear And Protection	5	1	0	5	70
	32850 3	C303	PLC, Microcontroller and SCADA	6	0	6	7	175
	32850 4	C304	Electrical Machine – II	6	1	6	8	175

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	32860 1	C309	Installation, Maintenance And Repair of Electrical Equipment	6	0	6	7	175
	32860 2	C310	Electrical Design, Drawing and Estimating II	5	0	8	7	130
	32860 3	C311	Utilization Of Electrical Energy	5	0	0	4	70
	32862 3	C314	Application Of Computer Software In Electrical Engineering	0	0	2	1	50
<b>Industrial Training</b>	32852 3	C308	Field Exposure (Industrial Training) Practical	0	0	0	2	50
<b>Projects</b>	32862 4	C315	Project Work	0	0	12	5	150
<b>Elective</b>	32850 5	C305.1	Renewable Source Of Energy	6	0	0	5	70
		C305.2	Electric Traction					
		C305.3	Control Of Electric Machine					
		C305.4	Energy Management					
							326	7430

**Table 1.2** Program Curriculum for assessment year 2019-20 as per BTEUP

	Subject Code	Course Code	Subject Name	Lecture (L)	Tutorial (T)	Practical (P)	Total Marks
<b>Basic Science Engineering</b>	328102	C102	Applied Mathematics – I	5	0	0	70
	328103	C103	Applied Physics – I	5	0	2	100
	328104	C104	Applied Chemistry	5	0	2	100
	328201	C111	Applied Mathematics - II	5	0	0	70
	328202	C112	Applied Physics –II	5	0	2	100
	328301	C201	Applied Mathematics – III	5	0	0	70
<b>Humanity Science</b>	328101	C101	Communication Skills-I	4	0	2	100
	328401	C211	Communication Skill- II	4	0	2	100
	328425	C221	Universal Human Values Lab	2	0	1	50
	728501	C301	Industrial Management and Entrepreneurship Development	5	0	0	70
			Games/NCC/Social and Cultural Activity/Community Development Work+ Discipline	0	0	1	30
				0	0	4	30
				0	0	3	30
				0	0	1	30
		0		0	6	30	
			0	0	4	30	
<b>Engineering Science</b>	328105	C105	Engineering Drawing-I	0	0	8	100
	328124	C109	Basics of Information Technology Lab	0	0	6	100
	328125	C110	General Workshop Practice-I Lab	0	0	8	100
	328224	C114	Basics of Mechanical and Civil Engineering	5	0	2	100
	328225	C115	Analog Electronics	4	0	4	100

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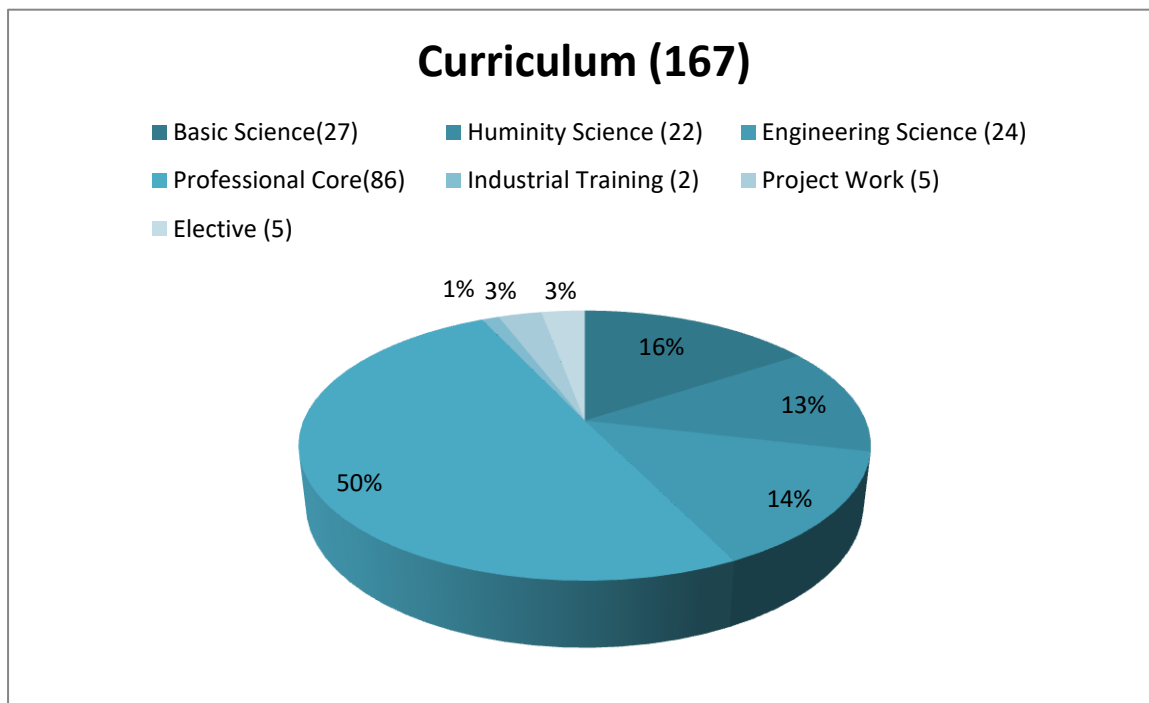
<b>Professional Core</b>	328225	C120	General Workshop Practice-II Lab	0	0	8	100
	328306	C206	Environmental Studies	3	0	2	100
	328406	C216	Energy Conservation	3	0	2	100
	728523	C319	INTEGRATIVE COMMUNICATION LAB			4	60
	728672	C320	Environmental Education & Disaster Management	4	-	-	50
	328203	C113	Basic Electrical Engineering	5	0	4	100
	328302	C202	Electrical Instrumentation and Measurement	6	0	4	130
	328303	C203	Electrical and Electronics Engineering Materials	6	0	0	70
	328304	C204	Digital Electronics	5	0	4	130
	328305	C205	Electrical Machine – I	6	0	4	130
	328402	C212	Industrial Electronics and Control	5	1	4	130
328403	C213	Electrical Design, Drawing and Estimating-I	3	0	8	130	
328404	C214	Power Plant Engineering	5	0	0	70	
328405	C215	Transmission and Distribution of Electrical Power	6	1	0	70	
728502	C302	Switchgear and Protection	5	1	0	70	
728503	C316	Industrial Electronics and control	4	1	4	175	
728504	C304	Electrical Machine – II	6	1	6	175	



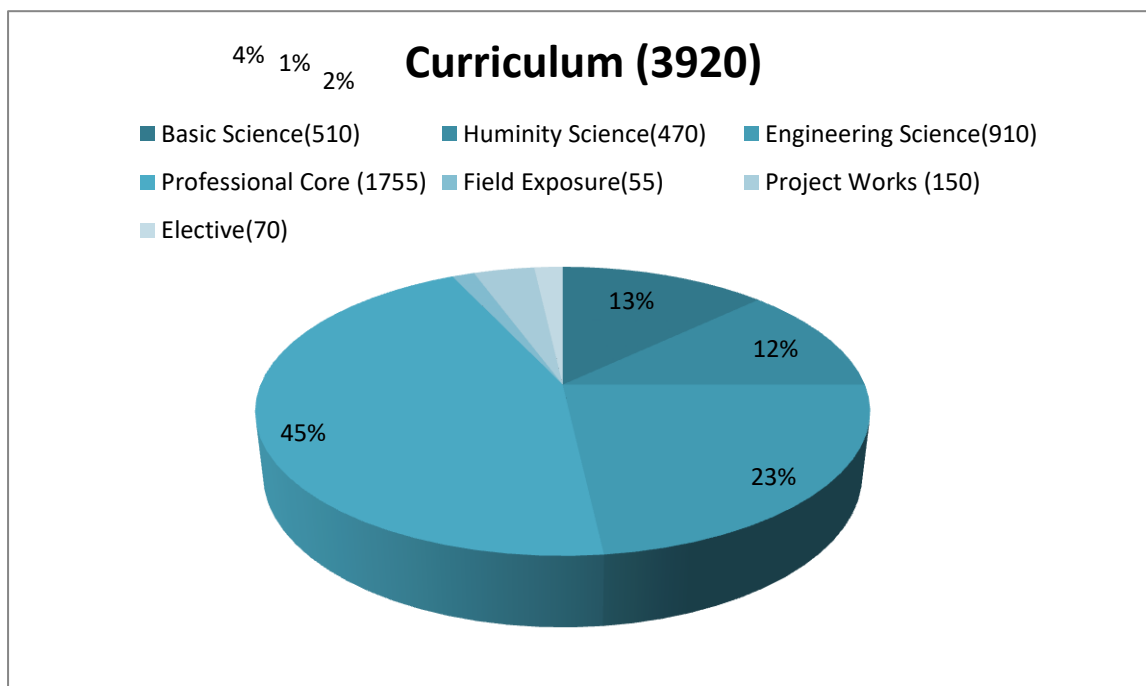


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	728601	C309	Installation, Maintenance and Repair of Electrical Equipment	6	0	6	175
	728602	C310	Electrical Design, Drawing and Estimating II	5	0	8	130
	728603	C311	Utilization of Electrical Energy	5	0	0	70
<b>Industrial Training</b>	728524	C318	FIELD EXPOSURE	0	0	0	50
<b>Projects</b>	728622	C315	Project Work Lab	0	0	12	150
<b>Elective</b>	728508		Control of Electrical Machine	6	0	0	70
			Process Control Instrumentation				
			Electric Traction				
			Renewable Sources of Energy				
			High Voltage Engineering				
		Energy Management					



**Figure 1.1(a)** Program Curriculum Graph based on course component on credit basis for the session 2020-21 & 2021-22



**Figure 1.1(b)** Program Curriculum Graph based on course component on marks basis for the session 2019-20





**Syllabus (New):**

**Link for Sessions 2023-24, 2022-23, 2021-22 and 2020-21:**

<https://bteup.ac.in/Syllabus/folder1920/328%20NSQF%20ELECTRICAL%20ENGG%20NITTR.pdf>

**Syllabus (Old):**

**Link for Session 2019-20, 2018-19 and 2017-18:**

<https://bteup.ac.in/Syllabus/folder1718/328-329 ELECT.pdf>