

Department of Electrical Engineering



Structure-

Second Year (B.Tech.)

Electrical Engineering (Under Graduate Program)

From Academic Year 2019- 20



Teaching and Evaluation scheme for

Second Year B.Tech. Program in Electrical Engineering Semester-III

Course	Curriculum	Course	Te	achi	ing	scheme	Evalu	ation So	cheme	
Code	component		L	Т	P	Credits	Scheme		Marks	
			L	ı	P			Ma	Min	
UELE0301			3	1	-	4	ISE-I	10		40
	PC	DC Motors and					MSE	30		
		Transformers					ISE-II	10		
							ESE	50	20	
UELE0302	PC	Analog Electronics					ISE-I	10		40
			3	-	-	3	MSE	30		
							ISE-II	10		
							ESE	50	20	
UELE0303	PC						ISE-I	10		40
		Measurement and	3	-	-	3	MSE	30		
		Instrumentation					ISE-II	10		
							ESE	50	20	
UELE0304	PC		3	1	-	4	ISE-I	10		40
		Electrical Circuit					MSE	30		
		Analysis					ISE-II	10		
							ESE	50	20	
UELE0305	BS	Engineering	3	1	-	4	ISE-I	10		40
		Mathematics - III					MSE	30		
							ISE-II	10		
							ESE	50	20	
UELE0361	Audit	Professional Ethics	2	-	-	-	-	100	40	40
	Course-I	& Value Education								
LIEL EGGG1	HS	DCM 1			_	1	IGE	2.5	10	
UELE0331	PC	DC Motors and	-	-	2	1	ISE	25	10	
		Transformers LAB					ESE(POE)	50	20	
UELE0332	PC		-	-	2	1	ISE	25	10	
		Analog Electronics								
		LAB					ESE(POE)	50	20	
UELE0333	PC	Measurement and	-	-	2	1	ISE	25	10	
		Instrumentation								_
		LAB					ESE(OE)	50	20	
UELE0334	PC	Electrical Circuit	-	-	2	1	ISE	25	10	
		Analysis LAB								
	Tot	al	17	3	8	22	-	850	340)
			TC 4	10		its: 22	-			



Teaching and Evaluation scheme for

Second Year B.Tech. Program in Electrical Engineering Semester-IV

Code	omponent		L	an.		Teaching scheme				Evaluation Scheme			
			L	T	P	Credits	Scheme						
								Max		Min			
							ISE-I	10					
TIPI PO 401	D.C.	AC Machines	2			2	MSE	30		40			
UELE0401	PC		3	-	-	3	ISE-II	10					
							ESE	50	20				
		D: 1/ 1					ISE-I	10		40			
UELE0402	PC	Digital Electronics	3			3	MSE	30					
UELEU402	PC	Electionics	3	-	-	3	ISE-II	10					
							ESE	50	20				
							ISE-I	10		40			
UELE0403	PC	Power System	3	1	_	4	MSE	30					
OLLLO-03	10	Economics)	1	_	7	ISE-II	10					
							ESE	50	20				
							ISE-I	10		40			
UELE0404	PC	Electromagnetic	3	1	_	4	MSE	30					
02220.0.		Fields					ISE-II	10	20				
							ESE	50	20				
							ISE-I	10		40			
UELE0405	PC	Signals and	3	1	_	4	MSE	30		40			
		Systems				-	ISE-II	10	20				
							ESE	50	20				
UELE0461	۸	Environmental	2	-	-	-		100	40	40			
	Audit Course-II	Studies											
	HS												
	115	AC Machines					ISE	25		10			
UELE0431	PC	LAB	-	-	2	1	ESE(POE)	50		20			
		LAD					ISE (FOE)	25		10			
		Digital					ISE	23		10			
UELE0432	PC	Electronics LAB	-	-	2	1	ESE(POE)	50		20			
		Licetionies LAD					LSL(1 OL)			20			
		Software LAB- I											
UELE0433	PC	Solt and Entire 1	-	-	2	1	ISE	50		20			
-													
UELE0441	PRJ	Mini Project-I	-	-	2	1	ISE	50		20			
	110						151						
	Total		17	3	08	22	-	850	,	340			



Note:

- ESE: End Semester Examination, MSE: Mid Semester Examination, ISE: In Semester Evaluation.
- HS: Humanities, Social science and Management, BS: Basic sciences including mathematics
- ES: Engineering Science, PC: Professional Core, PE: Professional Elective
- OEL: Open elective, PRJ: Project work, Seminar, Internship in industry etc.

List of Audit Courses - Semester III and IV

Year	Audit Course	Course Code	Audit Course
Second Year B.Tech-I	Audit Course-I	UELE0361	Professional Ethics and Value Education
Second Year	Audit	UELE0461	Environmental Studies
B.Tech-II	Course-II		



Department of Electrical engineering



Structure

For

Third Year (B. Tech.)

Electrical Engineering (Under Graduate Program)

From Academic Year 2020-21



Teaching and Evaluation scheme for **Third Year B.Tech. Program in Electrical Engineering Semester-V**

			Tea	chi	ng s	cheme	Eval	luation	Scheme	
Course Code	Curriculum Component	Course	L	T	P	Credits	Scheme	W	/eightage	
	Component							Max	Mir	1
		Feedback Control					ISE-I	10		
UELE0501	PC	System						30	-	40
OELE0301	rc		3	1	-	4	ISE-II	10		40
							ESE	50	20	
							ISE-I	30		
UELE0502	PC	Microprocessor and	3	_	_	3	MSE ISE-II	10	-	40
OELE0302	rc	Microcontroller	3	-	-	3	ESE	50	20	
									20	
							ISE-I	10		
UELE0503	PC	Power	2	1		4	MSE	30	-	40
		Electronics	3	1	-	4	ISE-II ESE	10 50	20	
		Power						10	20	
		Transmission and					MSE	30		
UELE0504	PC	Distribution	4	_	_	4	ISE-II	10	-	40
							ESE	50	20	
		Professional					ISE-I	10		
1151 5052	DE	Elective-I				2	MSE	30	-	40
UELE052x	PE		3	-	-	3	ISE-II	10		40
							ESE	50	20	
	Audit	Electrical								
UELE0561	course-III	Engineering	2	-	-	-	-	100	40	40
	ES	Materials								
		Feedback Control					ISE	25	10	I
UELE0531	PC	System	-	-	2	1	ESE(POE)	50	20	
		LAB								
1 HE 1 E 0 500	D.C.	Microprocessor					ISE	25	10	
UELE0532	PC	and	-	-	2	1	ESE(POE)	50	20	
		Microcontroller								
		LAB								
UELE0533	D.C.	Power Electronics			_	,	ISE	25	10	
	PC	LAB	-	-	2	1	ESE(OE)	25	10	
UELE0541	PRJ	Mini Project-II	-	-	2	1	ISE	50	20	
	Tot	tal	18	2	8	22	-	850	340)



Teaching and Evaluation scheme for

Third Year B.Tech. Program in Electrical Engineering Semester-VI

Course	Curriculum		Te	Teaching scheme		scheme		Ev	aluatio	n Schem	e
Code	Component	Course	L	T	P	Credits	\$	Scheme		Weighta	_
									Max]	Min
UELE0601	PC	Power System						ISE-I	10		
		Stability and	3	1	_	4			30	-	40
		Control	3	1		7	I	SE-II	10		
								ESE		20	
UELE0602	PC	Switchgear and					ISI		10		40
		Protection	3	1		4		MSE	30	-	
			3	1	-	4	I	SE-II	10		
								ESE	50	20	
UELE0603	PC	Electric and	4	-	-	4	ISI		10		40
		Hybrid						MSE	30	-	
		Vehicles						SE-II	10	2.0	
TIOFI FOCOL	0.5	0 51 1								20	
UOELE069*	OE	Open Elective I						ISE-I	10		40
			3	-	-	3	_	MSE	30	-	40
								ISE-II ESE	10 50	20	
		Professional						ISE-I	10	20	
		Elective-I						MSE	30	_	
UELE062x	PE	Licetive-i					-	SE – II	10		40
			3	-	-	3		ESE	50	20	
UELE0661	Audit	Industrial						ESE	30	20	
OELEOOOI	Course-	Management and						_	100	40	40
	IV	Operations	2	-	-	-			100	10	10
	HS	Research									
UELE0631	PC	Power System						ICE	50		
		LAB						ISE	50	2	20
			-	-	4	2					
							ES	E (POE)	50	2	20
UELE0632	PC	Switchgear and						ISE	25	1	0
OLLLU032	10	Protection	_	_	2	1					
		LAB	_	_	_	1	ES	E(POE)	50	2	20
UELE0633	PC	Electrical						ISE	25	1	0
		Workshop	_	_	2	1	T.C.				
		•			-		ES	E(OE)	50	2	20
	Tota	1	18	2	8	22			850	3.	40
	1014		10		J	22					



Note:

- **ESE:** End Semester Examination, **MSE:** Mid Semester Examination, **ISE:** In Semester Evaluation.
- **HS:** Humanities, Social science and Management, **BS:** Basic sciences including mathematics
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- OEL: Open elective, PRJ: Project work, Seminar, Internship in industry etc.
- *:Course code for Open Elective
- x : Course code for Professional Elective
- \$: Course code for Audit Course

List of Professional Electives –Semester V and VI

Year	Professional Elective	Course Code	Course Name
Third Year B.Tech-I	Professional Elective-I	UELE0521	Renewable Energy System
		UELE0522	Illumination Engineering
Third Year B.Tech-II	Professional Elective-II	UELE0621	HVDC Transmission System and FACTS
		UELE0622	Electrical Machine Design

List of Open Electives offered to other programs -Semester VI

Year	Open Elective	Course Code	Course Name
		UOELE0691	Solar power Technology
Third Year B.Tech-II	Open Elective-I	UOELE0692	Electric Motors & its Control

List of Audit Courses- Semester V and VI

Year	Year Audit Course		Audit Course Course		Course Name			
Third Year B.Tech-I	Audit Course-III	UELE0561	Electrical Engineering Materials					
Third Year B.Tech-II	Audit Course-IV	UELE0661	Industrial Management and Operations Research					

Department of Electrical engineering



Structure-

Final Year B.Tech.

Electrical Engineering (Under Graduate Program)

From Academic Year 2021-22



Teaching and Evaluation scheme for Final Year B.Tech. Program in Electrical Engineering Semester-VII

G	Curricul		Te	Teaching scheme					
Course Code	Curricul um Compon ent	Course	L	Т	P	Credits			
UELE0701	PC	Electrical Drives and Control	3	-	-	3			
UELE0702	PC	High Voltage Engineering	3	-	1	3			
UELE0703	PC	PLC & SCADA	3	1	-	3			
UELE072x	PE	Professional Elective-III	3		-	3			
UOEL079*	OE	Open Elective-II	3	-	-	3			
UELE0761	Audit -V HS	Intellectual Property Rights	2	-	-	-			
UELE0731	PC	Electrical Drives and Control LAB	-	-	2	1			
UELE0732	PC	Electric & hybrid vehicles lab	-	ı	2	1			
UELE0733	PC	Software Lab II	-	•	2	1			
UELE0751	PRJ	Project- I	_	_	4	2			
	То	tal	17	0	10	20			

Evaluation Scheme								
		Weighta	age					
Scheme	Max		Min					
ISE-I	10							
MSE	30	20						
ISE-II	10		40					
ESE	50	20						
ISE-I	10							
MSE	30	20						
ISE-II	10	,	40					
ESE	50	20						
ISE-I	10							
MSE	30	20	40					
ISE-II	10		40					
ESE	50	20						
ISE-I	10	20						
MSE	30	20	40					
ISE-II	10		40					
ESE	50	20						
ISE-I	10							
MSE	30	20						
ISE-II	10	20	40					
ESE	50	20						
-	100	40	40					
ISE	25	-	10					
ESE(POE)	50	2	20					
ISE	25	-	10					
ESE(OE)	50	2	20					
ISE	25 25		10					
ISE	25		10					
ESE(OE)	50	20						
-	850	3	40					



Teaching and Evaluation scheme for Final Year B.Tech. Program in Electrical Engineering Semester-VIII

Course	Curriculum	Course	Tea	achi	ings	cheme
Code	component	Course	L	Т	P	Credits
UELE082x	PE	Professional Elective-IV	3	1	1	3
UELE082x	PE	Professional Elective–V	3		-	3
UELE0851	PRJ	Project-II	-	-	12	6
	Total		6	0	12	12

Ev	EvaluationScheme							
Scheme		Weighta	age					
	Max	Min						
ISE-I	10							
MSE	30	20	4.0					
ISE-II	10		40					
ESE	50	20						
ISE-I	10							
MSE	30	20	40					
ISE-II	10							
ESE	50	20						
ISE-I	75		120					
ISE-II	75							
ESE (OE)	100	40						
ESE(OE)	50	20						
-	500		200					

Total Credits: 12
Total Contact Hours/Week: 18

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- OEL: Open elective, PRJ: Project work, Seminar, Internship in industry etc.
- *: Course code for Open Elective
- X : Course code for Professional Elective
- \$: Course code for Audit Course

List of Professional Electives- Semester VII and VIII

Year	ProfessionalElective	Course Code	Course Name
Final Year B.Tech-I	Professional Elective-III	UELE0721	Electrical Energy Management
		UELE0722	Advanced Electrical Drives
Final Year B.Tech-II	Professional Elective-IV	UELE0821	Smart Grid
		UELE0822	Advanced Power Electronics
Final Year B.Tech-II	Professional Elective-V	UELE0823	Power Quality
		UELE0824	Digital Signal Processing For Electrical Engineers

List of open Electives offered to other programs-Semester VII

Year	Open	Course Code	Course Name
	Elective		
Final Year B.Tech-I	Open Elective- II	UOELE0791	Electric and Hybrid Vehicles
		UOELE0792	Energy Audit
		UOELE0793	Industrial Automation

List of Audit Courses- Semester VII

Year	Audit Course	Course Code	Course Name
Final Year B.Tech-I	Audit Course-V	UELE0761	Intellectual Property Rights