



Department of Electrical Engineering

B. Tech. Electrical Engineering

Course Structure for Semester III [Second Year] w.e.f. 2021-2022

Regular Structure (DBATU)

Course Code	Type of Course	Course Title	Weekly Teaching Scheme			Evaluation Scheme				Credits
			L	T	P	CA	MSE	ESE	Total	
BTBS301	BSC	Engineering Mathematics -III	3	1	..	20	20	60	100	4
BTEEC302	PCC1	Electrical Machines-I	3	1	..	20	20	60	100	4
BTEEC303	PCC2	Electrical and Electronics Measurement	3	1	..	20	20	60	100	4
BTEEC304	HSSMC	Basic Human Right	2	..	..	..	..	..	..	Audit
BTES305	ESC	Engineering Material Science	3	..	..	20	20	60	100	3
BTEEL306	LC	Electrical Machines-I Lab	..	..	2	60	..	40	100	1
BTEEL307	LC	Electrical and Electronics Measurement Lab	..	..	2	60	..	40	100	1
BTEEP308	Project	Mini Project -I	..	..	4	60	..	40	100	2
BTES211P	Internship	Internship -I Evaluation	..	..	..	..	..	50	50	1

VAP/Add-on Course/s (A BIT Initiative)

Course Code	Course Title	Weekly Teaching Scheme		Evaluation Scheme (Marks)			
		L	P	TEST-1	TEST-2	Final Exam	Total
ELE3-A	Add-on Course on Introduction to MATLAB and SIMULINK	2	1	10	10	30	50


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Document No	Prepared on	Revised on	Prepared By	Approved By
BITACAD/Structure/ Branch/Even Sem/22-23	09/04/21	16/04/21 (V1) 28/02/23 (V2)	MDP	Dr. N.M. Kanhe Principal



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Department of Electrical Engineering

B. Tech. Electrical Engineering

Course Structure for Semester IV [Second Year] w.e.f. 2021-2022

Regular Structure (DBATU)

Course Code	Type of Course	Course Title	Weekly Teaching Scheme			Evaluation Scheme				Credits
			L	T	P	CA	MSE	ESE	Total	
BTEEC401	PCC3	Network Theory	3	1	..	20	20	60	100	4
BTEEC402	PCC4	Power System	3	1	..	20	20	60	100	4
BTEEC403	PCC5	Electrical Machine-II	3	1	..	20	20	60	100	4
BTBS404	BSC	Analog and Digital Electronics	3	..	..	20	20	60	100	3
BTEEPE405	PEC1	Group A	3	..	..	20	20	60	100	3
		(A) Electromagnetic Field Theory	3	..	..	20	20	60	100	3
		(B) Signals and System	3	..	..	20	20	60	100	3
		(C) Advance Renewable Energy Sources	3	..	..	20	20	60	100	3
		(D) Electronic Devices and Circuits	3	..	..	20	20	60	100	3
BTEEL406	LC	Network Theory Lab	..	..	2	30	..	20	50	1
BTEEL407	LC	Power System Lab	..	..	2	30	..	20	50	1
BTEEL408	LC	Electrical Machine-II Lab	..	..	2	30	..	20	50	1
BTEEL409	LC	Analog and Digital Electronics lab	..	..	2	30	..	20	50	1
BTEEP410	Internship	Internship-II (minimum of 4 weeks which can be completed partially in third or fourth semester or in at one time)
						220	100	380	700	22

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BITACAD/Structure/ Branch/Even Sem/22-23	09/04/21	16/04/21 (V1) 28/02/23 (V2)	MDP	Dr. N.M. Kanhe Principal



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VAP/Add-on Course/s (A BIT Initiative)

Course Code	Course Title	Weekly Teaching Scheme		Evaluation Scheme (Marks)			
		L	P	TEST-1	TEST-2	Final Exam	Total
ELE4-A	Add-on Course on Design of Solar PV rooftop system	2	1	10	10	30	50
ELE4-B	Add-on Course on Renewable Energy Sources	2	1	10	10	30	50


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Course Structure for Semester V [Third Year] w.e.f. 2022-2023

Regular Structure (DBATU)

Course Code	Type of Course	Course Title	Weekly Teaching Scheme			Evaluation Scheme				Credits
			L	T	P	CA	MSE	ESE	Total	
BTEEC501	PCC4	Power System Analysis	3	1	..	20	20	60	100	4
BTEEC502	PCC5	Microprocessor and Microcontroller	3	..	..	20	20	60	100	3
BTEEC503	PCC6	Power Electronics	3	1	..	20	20	60	100	4
BTEEPLE504	PCC2	Group B(Professional Elective)	3	..	..	20	20	60	100	3
		(A)HVDC	3	..	..	20	20	60	100	3
		(B)Power Quality Issues	3	..	..	20	20	60	100	3
		(C) Industrial Automation	3	..	..	20	20	60	100	3
BTEEOE05	OEC1	Group C(Open Elective)	3	..	..	20	20	60	100	3
		(A)Embedded System	3	..	..	20	20	60	100	3
		(B)Electrical Safety	3	..	..	20	20	60	100	3
		(C) Condition Monitoring of Electric Apparatus	3	..	..	20	20	60	100	3
BTHM506	HSSMC	Foreign Language	..	..	..	..	..	..	..	Audit
BTEEL507	LC	Power System Analysis Lab	2	60	..	40	100	1
BTEEL508	LC	Microprocessor and Microcontroller Lab	2	60	..	40	100	1

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BTEEL509	LC	Power Electronics Lab	2	60	..	40	100	1
BTEEP510	Project	Mini Project -II	2	60	..	40	100	1
BTEEP410	internship	Internship-II Evaluation	..	..	..	..	..	50	50	1
Total			15	2	10	340	100	510	950	22

VAP/Add-on Course/s (A BIT Initiative)(ELE5-A offered till 2022)

Course Code	Course Title	Weekly Teaching Scheme		Evaluation Scheme (Marks)			
		L	P	TEST-1	TEST-2	Final Exam	Total
ELE5-A	Add-on Course on IOT	0	2	10	10	30	50
ELE5-B	Value added Course on Electrical Vehicle system Design	1	2	10	10	30	50


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Course Structure for Semester VI [Third Year] w.e.f. 2022-2023

Regular Structure (DBATU)

Course Code	Type of Course	Course Title	Weekly Teaching Scheme			Evaluation Scheme				Credits
			L	T	P	CA	MSE	ESE	Total	
BTEEC601	PCC7	Switchgear and Protection	3	..	..	20	20	60	100	3
BTEEC602	PCC8	Electrical Machine Design	3	1	..	20	20	60	100	4
BTEEC603	PCC9	Control System Engineering	3	1	..	20	20	60	100	4
BTEEPE604	PEC3	Group D	3	..	..	20	20	60	100	3
		(A) Flexible AC Transmission System	3	..	..	20	20	60	100	3
		(B) Smart Grid Technology	3	..	..	20	20	60	100	3
		(C) Modeling, Simulation and Control of Electric Drives	3	..	..	20	20	60	100	3
BTEEOE605	OEC2	Group E	3	..	..	20	20	60	100	3
		(A) E-waste Management	3	..	..	20	20	60	100	3
		(B) Power Plant Engineering	3	..	..	20	20	60	100	3
		(C) Sensor Technology	3	..	..	20	20	60	100	3
		(D) Lightning Interaction with Power System	3	20	20	60	100	3
BTEEL606	LC	Switchgear and Protection	2	60	..	40	100	1

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		Lab								
BTEEL607	LC	Electrical Machine Design Lab	2	60	..	40	100	1
BTEEL608	LC	Control System Engineering Lab	2	60	..	40	100	1
BTEEM609	Seminar	Seminar	..	..	4	60	..	40	100	2
BTEEP610	Internship	Internship-III (minimum of 4 weeks which can be completed partially in third or fourth semester or in at one time)	..	..	..	..	..	..	..	Credits to be evaluated in VII sem.
			15	2	10	340	100	460	900	22

VAP/Add-on Course/s (A BIT Initiative)

Course Code	Course Title	Weekly Teaching Scheme		Evaluation Scheme (Marks)			
		L	P	TEST-1	TEST-2	Final Exam	Total
ELE6-A	Value added Course on Electrical Vehicle system Design	1	2	10	10	30	50
ELE6-A	Add-on Course on Machine Learning	1	2	10	10	30	50

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Course Structure for Semester VII [Fourth Year] w.e.f. 2023-2024

Regular Structure (DBATU)

Course Code	Type of Course	Course Title	Weekly Teaching Scheme			Evaluation Scheme				Credits
			L	T	P	CA	MSE	ESE	Total	
BTEEC701	PCC1	Power System Operation & Control	3	0	0	20	20	60	100	3
BTEEC702	PCC2	High Voltage Engineering	3	0	0	20	20	60	100	3
BTEEC703	PCC3	Electrical Drives	3	0	0	20	20	60	100	3
BTEEE704	PEC1	Elective-IX	3	0	0	20	20	60	100	3
		A) Special Purpose Electrical Machines	3	0	0	20	20	60	100	3
		B) Electrical Traction and Utilization	3	0	0	20	20	60	100	3
		C) Engineering System Design and Optimization	3	0	0	20	20	60	100	3
		D) Financial Management	3	0	0	20	20	60	100	3
BTEEE705	PEC2	Elective-X	3	0	0	20	20	60	100	3
		A) Digital Signal Processing	3	0	0	20	20	60	100	3
		B) Energy Audit and Conservation	3	0	0	20	20	60	100	3
		C) Electrical Power Quality	3	0	0	20	20	60	100	3
		D) HVDC Transmission and FACTS	3	0	0	20	20	60	100	3
BTEEL706	Lab	Power System Operation & Control	0	0	2	--	30	20	50	1

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		Lab								
BTEEL707	Lab	High Voltage Engineering Lab	0	0	2	--	30	20	50	1
BTEEL708	Lab	Electrical Drives Lab	0	0	2	--	30	20	50	1
BTEES709	Seminar	Seminar	0	0	2	--	30	20	50	1
BTEEP710	Project	Project Part-I	0	0	6	--	30	20	50	3
BTEEF711	--	Field Training /Internship/Industrial Training III	--	--	--	--	--	50	50	1
		Total	15	0	14	100	250	450	800	2 3


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Course Structure for Semester VIII [Fourth Year] w.e.f. 2023-2024

Regular Structure (DBATU)

Course Code	Type of Course	Course Title			Weekly Teaching Scheme			Evaluation Scheme	Credits
		L	T	P	MSE	CA	ESE		
1.Power Management Integrated Circuits 2.DC Power Transmission Systems 3.High Power Multilevel Converters 4.Fuzzy Sets, Logic and Systems & Applications 5.The Joy of Computing using Python 6.Introduction to Industry 4.0 and Industrial Internet of Things 7.Entrepreneurship Essentials # Student to opt any two subjects from above list		3	0	0	20*	20*	60*	100	3
		3	0	0	20*	20*	60*	100	3
BTEEP803	Project - II	0	0	30	--	100	150	250	15
	Total	6	0	30	40	240	270	450	21


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