

Course Structure
Evaluation Scheme

Sr. No	Particulars of Evaluation	MSE	CA		ESE		Total
			CA ₁	CA ₂	Internal	External	
01	Theory courses	20	10	10	---	60	100
02	Audit courses	---	50	50	---	---	100
03	Studio Courses (Product Design Engg)	---	30	30	40	---	100
03	Laboratory (Practical) courses	---	15	15	10	10	50
04	Seminar / Min Project/ Project Stage 1	---	30		20	---	50
05	Field Training	---	---	---	50	---	50
06	Project Stage II	---	---	---	50	50	100

Semester- III

Sr. No.	Subject Code	Subject	Contact Hours			Credit
			L	T	P	
Theory						
01	BTBSC301	Mathematics – III	3	1	-	4
02	BTCVC302	Mechanics of Solids	3	1	✓	4
03	BTCVC303	Hydraulics I	2	1	✓	3
04	BTCVC304	Surveying I	2	1	✓	3
05	BTCVC305	Building Construction	2	-	✓	2
06	BTCVC306	Engineering Geology	2	-	✓	2
07	BTHM303	Soft Skills Development	2	-	-	AU
Practical / Drawing and/or Design						
08	BTCVL307	Hydraulics Laboratory I	-	-	2	1
09	BTCVL308	Surveying Laboratory I	-	-	2	1
10	BTCVL309	Building Construction - Drawings Laboratory	-	-	2	1
11	BTCVL310	Engineering Geology Lab	-	-	2	1
12	BTCVS311	Seminar on Topic of Field Visit to Foundation Work	-	-	1	AU
13	BTCVF312	Field Training / Internship/Industrial Training Evaluation (from semester II)	-	-	-	1
Sub-Total			16	4	09	
Total			29			23

Semester- IV

Sr. No.	Subject Code	Subject	Contact Hours			Credit
			L	T	P	
Theory						
01	BTCVC401	Hydraulics II	2	1	✓	3
02	BTCVC402	Surveying – II	2	1	✓	3
03	BTCVC403	Structural Mechanics-I	3	1	-	4

04	BTID405	Product Design Engineering	1	2	-	3
05	CV E1	Elective I	3	-	-	3
06	BTCVC406	Engineering Management	1	-	-	AU
07	BTHM3401	Basic Human Rights	2	-	-	AU
Practical / Drawing and/or Design						
08	BTCVL407	Hydraulics Laboratory II	-	-	2	1
09	BTCVL408	Surveying Laboratory II	-	-	4	2
10	BTCVL409	Mechanics of Solids Laboratory	-	-	2	1
11	BTCVM410	Mini Project	-	-	2	1
12	BTCVF411	Seminar on Topic of Field Visit to works involving Superstructure Construction	-	-	1	1
Sub-Total			14	5	11	
Total			31			22
Elective I						
	BTCVE404A BTCVE404B BTCVE404C	Numerical Methods in Engineering Planning for Sustainable Development Instrumentation & Sensor Technologies for Civil Engineering Applications	3	-	-	3

Semester- V

Sr. No	Subject Code	Subject	Contact Hours			Credit
			L	T	P	
Theory						
01	BTCVC 501	Design of Steel Structures	2	2	-	4
02	BTCVC 502	Structural Mechanics-II	2	1	-	3
03	BTCVC 503	Soil Mechanics	3	1	✓	4
04	BTCVC 504	Environmental Engineering	2	-	✓	2
05	BTCVC 505	Transportation Engineering	2	-	✓	2
06	CV E2	Elective II	3	-	-	3
07	BTHM507	Essence of Indian Traditional Knowledge	1	-	-	AU
Practical / Drawing and/or Design						
08	BTCVL508	Soil Mechanics Laboratory	-	-	2	1
09	BTCVL509	Environmental Engineering Laboratory	-	-	2	1
10	BTCVL510	Transportation Engineering Laboratory	-	-	2	1
11	BTCVS511	Seminar on Topic of Field Visit to works related to Building Services	-	-	1	AU
Sub-Total			15	4	7	
Total			26			21
Elective II						
	BTCVE506A BTCVE506B BTCVE506C BTCVE506D	Materials, Testing & Evaluation Computer Aided Drawing Development Engineering Business Communication & Presentation Skills	3	-	-	3

Semester- VI

\$:Students should register for the CVF 705 in Semester VI to undergo training during vacation after semester VI and appear at examination in Semester VII. Result shall appear in Grade-sheet of Semester VII

Sr. No.	Subject Code	Subject Title	Contact hours			Credit
			L	T	P	
01	BTCVC601	Design of Concrete Structures I	3	1	-	3
02	BTCVC602	Foundation Engineering	2	1	-	3
03	BTCVC603	Concrete Technology	2	-	✓	2
04	BTCVC604	Project Management	2	1	-	2
05	CVE3	Elective III	3	-	-	3
06	BTCVC606	Building Planning and Design	2	-	✓	2
Practical / Drawing and/or Design						
07	BTCVL607	Concrete Technology Laboratory	-	-	2	1
08	BTCVL608	Building Planning, Design and Drawing Laboratory	-	-	4	2
09	BTCVM609	Community Project (Mini Project)	-	-	2	1
10	BTCVS610	Seminar on Topic of Field Visit Road Construction	-	-	1	AU
11	BTCVF611	Industrial Training ^s	-	-	2	--
Sub-Total			14	3	11	
Total			28			19
Elective III						
	BTCVE605A	Air Pollution Control				
	BTCVE605B	Operations Research				
	BTCVE605C	Geographic Data Analysis and Applications				
	BTCVE605D	Advanced Engineering Geology				
	BTCVE605E	Advanced Soil Mechanics				
	BTCVE605F	Design of Masonry and Timber Structures				

Semester – VII

Sr. No.	Subject Code	Subject Title	Contact hours			Credit
			L	T	P	
01	BTCVC 701	Design of Concrete Structures II	2	1	-	3
02	BTCVC 702	Infrastructure Engineering	3	-	-	3
03	BTCVC 703	Water Resources Engineering	2	1	-	3
04	BTCVC 704	Professional Practices	2	1	✓	3
05	CVE4	Elective IV	3	-	-	3
06	CVE5	Elective V	3	-	-	3
Practical / Drawing and/or Design						
07	BTCVL707	Professional Practices Laboratory	-	-	2	1
08	BTCVL708	Design & Drawing of Steel Structures	-	-	4	2
09	BTCVP709	Project Stage-I	-	-	2	1
10	BTCVF710	Industrial Training	-	-	-	AU
Sub-Total			15	3	08	
Total			26			22
Elective IV						
	BTCVE705A	Plastic Analysis and Design	-	-	-	
	BTCVE705B	Machine Foundations	-	-	-	

	BTCVE705C BTCVE705D BTCVE705E	Modern Surveying Techniques Engineering Economics Ground Improvement Techniques			
Elective V					
	BTCVE706A BTCVE706B BTCVE706C BTCVE706D BTCVE706F BTCVE706F	Advanced Structural Mechanics Town and Urban Planning Construction Economics & Finance Intelligent Transportation Systems Waste Water Treatment Tunneling and Underground Excavations	-	-	--

Semester – VIII

Sr. No.	Subject Code	Subject Title	Contact hours			Credit
			L	T	P	
01	BTCVC 801	Introduction to Earthquake Engineering	2	1		3
02	CVE6	Elective VI	3	-		3
03	CVE7	Elective VII	3	-		3
04	CVE8	Elective VIII	3	-		3
Practical / Drawing and/or Design						
05	BTCVL805	Earthquake Engineering Laboratory	-	-	2	1
06	BTCVL806	Design and Drawing of RC Structures	-	-	4	2
07	BTCVF807	Self-Study Report based on field visit to Infrastructure Project Works	-	-	2	1
08	BTCVP808	Project Stage-II	-	-	8	4
		Sub-Total	11	1	16	
		Total	28			20
Elective VI						
	BTCVE802A BTCVE802B BTCVE802C BTCVE802D BTCVE802E	Limit State Design of Steel Structures Construction Techniques Pavement Management System Composite Materials Disaster Preparedness & Planning Management	-	-		-
Elective VII						
	BTCVE803A BTCVE803B BTCVE803C BTCVE803D	Bridge Engineering Structural Audit Design of Hydraulic Structures Environmental Impact Assessment and Life Cycle Analyses	-	-		-
Elective VIII						
	BTCVE804A BTCVE804B BTCVE804C BTCVE804D BTCVE804E	Rock Mechanics Water Power Engineering Water Resources Economics Planning and Management Finite Element Method Repair & Rehabilitation of Structures	-	-		-
Overall Total			50+168 = 218			127

Semester I

Group A

Course Code	Course Title	Weekly Teaching hrs			Evaluation Scheme			Credit
		L	T	P	MSE	CA	ESE	
Mandatory	Induction Program	3 Weeks duration in the beginning of the semester.						
BTBS101	Engineering Mathematics - I	3	1	-	20	20	60	4
BTBS102	Engineering Physics	3	1	-	20	20	60	4
BTES103	Engineering Graphics	2	-	-	20	20	60	2
BTHM104	Communication Skills	2	-	-	20	20	60	2
BTES105	Energy and Environment Engineering	2	-	-	20	20	60	2
BTES106	Basic Civil and Mechanical Engineering	2	-	-	-	50	-	Audit
BTBS107L	Engineering Physics Lab	-	-	2	-	60	40	1
BTBS108L	Engineering Graphics Lab	-	-	4	-	60	40	2
BTHM109L	Communication Skill Lab	-	-	2	-	60	40	1
TOTAL		14	2	8	100	330	420	18

Semester II

Group B

Course Code	Course Title	Weekly Teaching hrs			Evaluation Scheme			Credit
		L	T	P	MSE	CA	ESE	
BTBS201	Engineering Mathematics - II	3	1	-	20	20	60	4
BTBS202	Engineering Chemistry	3	1	-	20	20	60	4
BTES203	Engineering Mechanics	2	1	-	20	20	60	3
BTES204	Computer Programming in C	2	-	-	20	20	60	2
BTES205	Workshop Practices	-	-	4	-	60	40	2
BTES206	Basic Electrical & Electronics Engineering	2	-	-	-	50	-	Audit
BTBS207L	Computer Programming Lab	-	-	2	-	60	40	1
BTBS208L	Engineering Chemistry Lab	-	-	2	-	60	40	1
BTES209L	Engineering Mechanics Lab	-	-	2	-	60	40	1
BTES210P	Mini Project	-	-	2	-	60	40	1
BTES211P	Field Training / Internship / Industrial Training (minimum of 4 weeks which can be completed partially in First Semester and Second Semester or in at one time).	-	-	-	-	-	-	Credit to be evaluated in III Sem.
TOTAL		12	3	12	80	430	440	19

Semester III

Sr. No.	Course Code	Course Title	Weekly Teaching hrs			Evaluation Scheme			Credit
			L	T	P	MSE	CA	ESE	
1	BTBSC301	Engineering Mathematics – III	3	1	-	20	20	60	4
2	BTCOC302	Discrete Mathematics	2	1	-	20	20	60	3
3	BTCOC303	Data Structures	2	1	-	20	20	60	3
4	BTCOC304	Computer Architecture & Organization	2	1	-	20	20	60	3
5	BTCOC305	Digital Electronics & Microprocessors	2	1	-	20	20	60	3
6	BTHM3401	Basic Human Rights	2	-	-	-	50	-	Audit
7	BTCOL306	Python Programming	1	-	2	-	60	40	2
8	BTCOL307	HTML and JavaScript	1	-	2	-	60	40	2
9	BTCOL308	Data Structures Lab	-	-	2	-	60	40	1
10	BTCOL309	Digital Electronics & Microprocessor Lab	-	-	2	-	60	40	1
11	BTES211P	Field Training / Internship / Industrial Training Evaluation	-	-	-	-	-	50	1
TOTAL			15	5	8	100	390	510	23

Semester IV

Sr. No.	Course Code	Course Title	Weekly Teaching hrs			Evaluation Scheme			Credit
			L	T	P	MSE	CA	ESE	
1	BTCOC401	Design & Analysis of Algorithms	2	1	-	20	20	60	3
2	BTCOC402	Probability & Statistics	2	1	-	20	20	60	3
3	BTCOC403	Operating Systems	2	1	-	20	20	60	3
4	Elective-I								
	BTCOE404A	Object Oriented Programming in Java	2	1	-	20	20	60	3
	BTCOE404B	Object Oriented Programming in C++							
5	BTID405	Product Design Engineering	1	-	2	-	60	40	2
6	Elective-II								
	BTBS405A	Physics of Engineering Materials	2	1	-	20	20	60	3
	BTCOE406B	Numerical Methods							
	BTHM3402	Soft Skills and Personality Development							
7	BTCOL407	Design & Analysis of Algorithms Lab	-	-	2	-	60	40	1
8	BTCOL408	Introduction to Data Science with R	1	-	2	-	60	40	2
9	BTCOL409	Object Oriented Programming Lab	-	-	2	-	60	40	1
10	BTCOL410	Operating System Lab	-	-	2	-	60	40	1
11	BTCOF411	Field Training/Internship/Industrial Training Evaluation (Credit to be evaluated in V Sem.)	-	-	-	-	-	-	*
TOTAL			12	5	10	100	400	500	22

Sr. No.	Course Code	Course Title	Weekly Teaching hrs			Evaluation Scheme			Credit
			L	T	P	MSE	CA	ESE	
Semester V									
1	BTCOC501	Database Systems	3	1	-	20	20	60	4
2	BTCOC502	Theory of Computations	3	1	-	20	20	60	4
3	BTCOC503	Machine Learning	3	1	-	20	20	60	4
4	BTCOE504	Elective-III (A) Introduction to Research (B) Cyber Laws (C) Open Elective offered by other departments	2	-	-	20	20	60	2
5	BTCOE505	Elective-IV (A) Economics & Management (B) Business Communication	2	-	-	20	20	60	2
6	BTCOC506	Competitive Programming-I	1	-	2	-	60	40	2
7	BTCOL507	Database System Laboratory	-	-	2	-	60	40	1
8	BTCOL508	Machine Learning Laboratory	-	-	2	-	60	40	1
9	BTCOS509	Seminar	-	-	2	-	60	40	1
10	BTCOF411	Internship/Industrial Training	-	-	-	-	60	40	1
TOTAL			14	3	8	100	400	500	22

Sr. No.	Course Code	Course Title	Weekly Teaching hrs			Evaluation Scheme			Credit
			L	T	P	MSE	CA	ESE	
Semester VI									
1	BTCOC601	Compiler Design	3	1	-	20	20	60	4
2	BTCOC602	Computer Networks	3	1	-	20	20	60	4
3	BTCOE603	Elective-V (A) Human Computer Interaction (B) Artificial Intelligence (C) Object-Oriented Analysis Design	2	1	-	20	20	60	3
4	BTCOE604	Elective-VI (A) Geographic Information System (B) Biology (C) Internet of Things	2	-	-	20	20	60	2
5	BTCOE605	Open Elective-VII (A) Development Engineering (B) National Social Service (C) Consumer Behaviour	2	-	-	20	20	60	2
6	BTCOC606	Competitive Programming-II	1	-	2	-	60	40	2
7	BTCOL607	(A) Mobile Application Development	1	-	2	-	60	40	2
		(B) Internet of Things Laboratory							
8	BTCOL608	Computer Networks Laboratory	-	-	2	-	60	40	1
9	BTCOF609	Filed Training / Internship / Industrial Training (Credit to be evaluated in VII Sem.)	-	-	-	-	-	-	*
TOTAL			14	3	6	100	280	420	20

Sr. No.	Course Code	Course Title	Weekly Teaching hrs			Evaluation Scheme			Credit
Semester VII									
			L	T	P	MSE	CA	ESE	
1	BTCOC701	Software Engineering	2	-	-	20	20	60	2
2	BTCOE702	Elective-VIII (A) Bioinformatics (B) Distributed System (C) Cloud Computing	2	1	-	20	20	60	3
3	BTCOE703	Elective-IX (A) Advanced Operating System (B) Computer Graphics (C) Bio-Metrics (D) Digital Image Processing	2	1	-	20	20	60	3
4	BTCOE704	Open Elective-X (A) Information Security (B) Business Intelligence (C) Blockchain	2	1	-	20	20	60	3
5	BTCOL705	Full Stack Development (LAMP/MEAN)	1	-	2	-	60	40	2
6	BTCOL706	System Administration	1	-	2	-	60	40	2
7	BTCOP707	Project-I	-	-	6	-	60	40	6
8	BTCOF609	Internship/Industrial Training	-	-	-	-	60	40	1
TOTAL			10	3	10	80	320	400	22

Sr. No.	Course Code	Course Title	Weekly Teaching hrs			Evaluation Scheme			Credit
Semester VIII (Scheme A)									
			L	T	P	MSE	CA	ESE	
1	BTCOE801	Elective-XI (A) Software Product Design (B) Quantum Computing (C) Software Testing (D) Big Data Analytics	2	1	-	20	20	60	3
2	BTCOE802	Open Elective-XII (A) 3D Printing And Design (B) Robotics (C) Advanced Database Techniques	2	1	-	20	20	60	3
3	BTCOE803	Open Elective-XIII (A) Virtual Reality (B) Deep Learning (C) Elective offered by other dept.	2	1	-	20	20	60	3
4	BTCOP804	Project-II	-	-	8	-	60	40	8
TOTAL			6	3	8	60	120	220	17
Semester VIII (Scheme B)									
1	BTCOF805	Industrial In-plant Training	-	-	18	-	120	180	9
2	BTCOP804	Project-II	-	-	8	-	60	40	8
TOTAL			-	-	26	-	180	220	17

Teaching & Evaluation scheme of Third year B. Tech. Electrical Engineering / Electrical Engineering (Electronics and Power)/ Electrical & Electronics Engg / Electrical & Power Engg .

V Semester

Course Code	Course Name	Teaching Scheme			Evaluation Scheme				Credits
		L	P	T	Int	MSE	ESE	Total	
BTEEC501	Electrical Machine-II	3	0	1	20	20	60	100	4
BTEEC502	Power System-II	3	0	1	20	20	60	100	4
BTEEL503	Microprocessor and micro Controller	3	0	0	20	20	60	100	3
BTHM504	Value Education, Human Rights and Legislative Procedures [MOOC/Swayam/NPTEL]	2	0	0	-	-	-	Audit course	0
BTEEE505	Elective-IV	3	0	0	20	20	60	100	3
BTEEOE506	Elective-V	3	0	0	20	20	60	100	3
BTEEL507	Electrical Machine-II Lab	0	4	0	60	-	40	100	2
BTEEL508	Power System-II Lab	0	2	0	30	-	20	50	1
BTEEL509	Microprocessor and micro Controller Lab	0	2	0	30	-	20	50	1
BTEEF510	Industrial Training	-	-	-	50	-	-	50	1
	Total	17	08	02	270	100	380	750	22

Elective- IV: 1.Illumination engineering 2. Advances in Renewable Energy Sources. 3. Testing and Maintenance of Electrical equipment.

Elective-V: 1.Electrical Mobility. 2 Power Plant Engineering. 3. Design and Analysis of Algorithms

VI semester

Course Code	Course Name	Teaching Scheme			Evaluation Scheme				Credits
		L	P	T	Int	MSE	ESE	Total	
BTEEC601	Control System	3	0	1	20	20	60	100	4
BTEEC602	Principles of Electrical Machine Design	3	0	0	20	20	60	100	3
BTEEC603	Power Electronics	3	0	1	20	20	60	100	4
BTEEE604	Elective-VI	3	0	0	20	20	60	100	3
BTEEC605	Elective-VII	3	0	0	20	20	60	100	3
BTEEOE606	Elective-VIII [MOOC/Swayam/NPTEL]	3	0	0	20	20	60	100	3
BTEEL607	Control System- Lab	0	2	0	30	-	20	50	1
BTEEL608	Principles of Electrical Machine Design Lab	0	2	0	30	-	20	50	1
BTEEL609	Power Electronics Lab	0	4	0	60	-	40	100	2
	Total	18	08	02	240	120	440	800	24

Elective-VI Industrial automation and Control 2. Design of Experiments 3. Artificial neural network.

Elective-VII 1. Switch Gear and Protection 2. Computer aided analysis and design 3. Mechatronics

Elective- VIII. 1. Rural Technology and Community Development. 2. Project Management 3. Knowledge Management

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**B. Tech (Electronics & Telecommunication Engineering) / B. Tech (Electronics Engineering)
Curriculum for Semester III [Second Year]**

Sr. No.	Course Code	Course Title	Hours Per Week			Evaluation Scheme			Total Marks	Credits
			L	T	P	MSE	CA	ESE		
1	BTBSC301	Engineering Mathematics-III	3	1	0	20	20	60	100	4
2	BTEXC302	Analog Circuits	2	1	0	20	20	60	100	3
3	BTEXC303	Electronic Devices & Circuits	2	1	0	20	20	60	100	3
4	BTEXC304	Network Analysis	2	1	0	20	20	60	100	3
5	BTEXC305	Digital Logic Design	2	1	0	20	20	60	100	3
6	BTHM3401	Basic Human Rights	2	0	0	--	50	--	50	(Audit)
7	BTEXL307	Analog Circuits Lab	0	0	2	--	60	40	100	1
8	BTEXL308	Electronic Devices & Circuits Lab	0	0	2	--	60	40	100	1
9	BTEXL309	Network Analysis Lab	0	0	2	--	60	40	100	1
10	BTEXL310	Digital Logic Design Lab	0	0	2	--	60	40	100	1
11	BTEXW311	Electronics Workshop	0	0	2	--	60	40	100	1
12	BTES211P	Field Training/ Internship/Industrial Training Evaluation	--	--	--	--	--	50	50	1
Total			13	05	10	100	450	550	1100	22

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**B. Tech (Electronics & Telecommunication Engineering) / B. Tech (Electronics Engineering)
Curriculum for Semester IV [Second Year]**

Sr. No	Course Code	Course Title	Hours Per Week			Evaluation Scheme			Total Marks	Credits
			L	T	P	MSE	CA	ESE		
1	BTEXC401	Electrical Machines and Instruments	2	1	0	20	20	60	100	3
2	BTEXC402	Analog Communication Engineering	2	1	0	20	20	60	100	3
3	BTEXC403	Microprocessor	2	1	0	20	20	60	100	3
4	BTEXC404	Signals and Systems	2	1	0	20	20	60	100	3
5	BTID405	Product Design Engineering	1	0	2	30	30	40	100	2
6	BTBSC406	Numerical Methods and Computer Programming	2	1	0	20	20	60	100	3
7	BTEXL407	Electrical Machines and Instruments Lab	0	0	2	--	60	40	100	1
8	BTEXL408	Analog Communication Engineering Lab	0	0	2	--	60	40	100	1
9	BTEXL409	Microprocessor Lab	0	0	2	--	60	40	100	1
10	BTEXL410	Signals and Systems Lab	0	0	2	--	60	40	100	1
11	BTHML411	Soft-Skill Development	0	0	2	--	60	40	100	1

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12	BTEXF412	Field Training/ Internship/Industrial Training (Minimum 4 weeks which can be completed partially in third semester or fourth semester or in at one time)	--	--	--	--	--	--	--	1 (To be evaluated in V th Semester)
Total			11	05	12	130	430	540	1100	22

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**B. Tech (Electronics Engineering)
Proposed Curriculum for Semester V [Third Year]**

S. N.	Course Code	Type of Course	Course Title	Hours Per Week			Evaluation Scheme			Total Marks	Credits
				L	T	P	MSE	CA	ESE		
1	BTEXC501	Professional Core Course 1	Electromagnetic Field Theory	2	1	0	20	20	60	100	3
2	BTEXC502	Professional Core Course 2	Control System Engineering	2	1	0	20	20	60	100	3
3	BTEXC503	Professional Core Course 3	Microelectronics	3	0	0	20	20	60	100	3
4	BTEXC504	Professional Core Course 4	Digital Signal Processing	2	1	0	20	20	60	100	3
5	BTEXC505	Professional Core Course 5	Microcontroller and its Applications	3	0	0	20	20	60	100	3
6	BTEXPE506A	Program Elective Course 1	Probability Theory and Random Processes	3	0	0	20	20	60	100	3
	BTEXPE506B		NSQF (Level 7 Course)								
	BTEXPE506C		Data Structures and Algorithms Using Java Programming								
	BTEXPE506D		Introduction to MEMS								

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	BTEXPE506E		Audio and Video Processing								
7	BTEXL507	Control System Engineering Lab		0	0	2	--	30	20	50	1
8	BTEXL508	Digital Signal Processing Lab		0	0	2	--	30	20	50	1
9	BTEXL509	Microcontroller and its Applications Lab		0	0	2	--	30	20	50	1
10	BTEXP510	Mini Project		0	0	2	--	30	20	50	1
11	BTEXS511	Seminar		0	0	2	--	30	20	50	1
12	BTEXF412	Field Training/ Internship/Industrial Training Evaluation		--	--	--	--	--	50	50	1
Total				15	03	10	120	270	510	900	24

B. Tech (Electronics Engineering)
Proposed Curriculum for Semester VI [Third Year]

S.N.	Course Code	Type of Course	Course Title	Hours Per Week			Evaluation Scheme			Total Marks	Credits
				L	T	P	MSE	CA	ESE		
1	BTEXC601	Professional Core Course 1	Computer Architecture	3	0	0	20	20	60	100	3
2	BTEXC602	Professional Core Course 2	Power Electronics	3	0	0	20	20	60	100	3
3	BTEXPE603A	Program Elective Course 2	Digital Communication	3	0	0	20	20	60	100	3
	BTEXPE603B		Computer Network and Cloud Computing								
	BTEXPE603C		Nano Electronics								
	BTEXPE603D		Web Development and Design								
4	BTEXOE604A	Open Elective Course 1	Digital System Design	3	0	0	20	20	60	100	3
	BTEXOE604B		Neural Networks and Fuzzy Systems								
	BTEXOE604C		NSQF (Level 7 Course)								
	BTEXOE604D		Analog Integrated Circuit Design								
5	BTEXOE605A	Open Elective Course 2	Embedded System Design	2	0	0	20	20	60	100	2
	BTEXOE605B		Electronics System Design								

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	BTEXOE605C		Project Management and Operation Research								
	BTEXOE605D		Android Programming								
6	BTHM606	Humanities & Social Science including Management Courses	Employability & Skill Development	2	0	0	--	50	0	50	2
7	BTEXL607	Power Electronics Lab		0	0	2	--	30	20	50	1
8	BTEXL608	Program Elective Course 2 Lab		0	0	2	--	30	20	50	1
9	BTEXL609	Open Elective Course 1 Lab		0	0	2	--	30	20	50	1
10	BTEXP610	Community Project		0	0	2	--	30	20	50	1
11	BTEXS611	Seminar		0	0	2	--	30	20	50	1
12	BTEXF612	Field Training/ Internship/Industrial Training (Minimum 4 weeks)		--	--	--	--	--	--	--	1*
Total				16	0	10	100	300	400	800	21

Program Elective 2	Open Elective 1	Open Elective 2
(A) Digital Communication	(A) Digital System Design	(A) Embedded System Design
(B) Computer Network and Cloud Computing	(B) Neural Networks and Fuzzy Systems	(B) Electronics System Design
(C) Nano Electronics	(C) NSQF (Level 7 Course)	(C) Project Management and Operation Research
(D) Web Development and Design	(D) Analog Integrated Circuit Design	(D) Android Programming

* To be evaluated in VIIth Semester

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**B. Tech (Electronics Engineering)
Proposed Curriculum for Semester VII [Final Year]**

S.N.	Course Code	Type of Course	Course Title	Hours Per Week			Evaluation Scheme			Total Marks	Credits
				L	T	P	MSE	CA	ESE		
1	BTEXC701	Professional Core Course 1	Antennas and Wave Propagation	3	0	0	20	20	60	100	3
2	BTEXPE702	Program Elective 3	Group A	3	0	0	20	20	60	100	3
3	BTEXPE703	Program Elective 4	Group B	3	0	0	20	20	60	100	3
4	BTEXPE704	Program Elective 5	Group C	3	0	0	20	20	60	100	3
5	BTHM705	Humanities & Social Science including Management Courses	Financial management	2	0	0	--	50	--	50	2
6	BTEXL706	Program Elective 3 Lab		0	0	2	--	30	20	50	1
7	BTEXL707	Program Elective 4 Lab		0	0	2	--	30	20	50	1
8	BTEXL708	Program Elective 5 Lab		0	0	2	--	30	20	50	1
9	BTEXP709	Project Part-I		0	0	8	--	50	50	100	4
10	BTEXS710	Seminar		0	0	2	--	30	20	50	1
11	BTEXF612	Field Training/ Internship/Industrial Training Evaluation		--	--	--	--	--	50	50	1
Total				14	0	16	80	300	420	800	23

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Program Elective 3 (Group A)	Program Elective 4 (Group B)	Program Elective 5 (Group C)
(A) Digital Image Processing	(A) IOT 4.0	(A) Microwave Theory & Techniques
(B) Data Compression and Encryption /Cryptography	(B) Wireless Sensor Networks	(B) Satellite Communication
(C) NSQF (Level 7 Course)	(C) CMOS Design	(C) Fiber Optic Communication
(D) Parallel Processing	(D) Process Instrumentation	(D) Wireless Communication

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B. Tech (Electronics Engineering)
Proposed Curriculum for Semester VIII [Final Year]

(Students doing the Project at Institute Level)

Sr. No.	Course Code	Type of Course	Course Title	Hours Per Week			Evaluation Scheme			Total Marks	Credits
				L	T	P	MSE	CA	ESE		
1	BTEXPE801	Program Elective 6	Group A	3	0	0	20	20	60	100	3
2	BTEXPE802	Program Elective 7	Group B	3	0	0	20	20	60	100	3
3	BTEXOE803	Open Elective 3	Group C	3	0	0	20	20	60	100	3
4	BTEXL804	Program Elective 6 Lab		0	0	2	--	40	60	100	1
5	BTEXL805	Program Elective 7 Lab		0	0	2	--	40	60	100	1
6	BTEXP806	Project Part-II		0	0	16	--	100	50	150	8
Total				9	0	20	60	240	350	650	19

OR

B. Tech (Electronics Engineering)

Proposed Curriculum for Semester VIII [Final Year]

(Students doing the Project at Industry)

Sr. No.	Course Code	Type of Course	Course Title	Hours Per Week			Evaluation Scheme			Total Marks	Credits
				L	T	P	MSE	CA	ESE		
1	BTEXPE801	Program Elective 6	Group A	3	0	0	20	20	60	100	3*
2	BTEXPE802	Program Elective 7	Group B	3	0	0	20	20	60	100	3*
3	BTEXOE803	Open Elective 3	Group C	3	0	0	20	20	60	100	3*
4	BTEXP804	Project Part-II		0	0	20	--	200	150	350	10
Total				9	0	20	60	260	330	650	19

* Students should complete the certification credit course using SWAYAM, MOOC, NPTEL, Coursera platform and submit the certificate. University will transfer these credits accordingly.

OR

B. Tech (Electronics Engineering)

Proposed Curriculum for Semester VIII [Final Year]

(Students doing the In-plant training and completing the Project sponsored / promoted by Industry)

Sr. No.	Course Code	Type of Course	Course Title	Hours Per Week			Evaluation Scheme			Total Marks	Credits
				L	T	P	MSE	CA	ESE		
1	BTEXPE801	Program Elective 6	Group A	--	--	--	--	60*	40*	--	Audit *
2	BTEXPE802	Program Elective 7	Group B	--	--	--	--	60*	40*	--	Audit *
3	BTEXOE803	Open Elective 3	Group C	--	--	--	--	60*	40*	--	Audit *
4	BTEXP804I	In-Plant Training and Project Part-II		--	--	30	--	450	200	--	19
Total				--	--	30	--	450	200	650	19

* Students should complete the certification course using SWAYAM, MOOC, NPTEL Platform or self -study mode.

Program Elective 6 (Group A)	Program Elective 7 (Group B)	Open Elective 3 (Group C)
(A) Surface Mounting Technology	(A) e-Yantra	(A) Advanced Industrial Automation
(B) Mixed Signal Design	(B) Mobile Communication & Networks	(B) Electronics in Smart City
(C) Bio-medical Signal Processing	(C) Geo-informatics and Spatial Computing	(C) Industrial Drives and Control
(D) Multirate Digital Signal Processing	(D) Software Defined Radio	(D) Robotics Design
(E) Wavelet Theory	(E) Entrepreneurship Development	(E) Block Chain Technology

Teaching and Evaluation Scheme Third Year B. Tech. Programme in Information Technology

Sr. No	Course Code	Course Title	Teaching Scheme			Evaluation Scheme				Total Marks	Credits	Total Hours	
			L	T	P	MSE	CA		ESE				
							CA-I	CA-II	Internal				External
Semester V													
1	BTITC501	Database Management Systems	3	-	-	20	20	60	100	3	3		
2	BTITC502	Design and Analysis of Algorithms	3	-	-	20	20	60	100	3	3		
3	BTITC503	Software Engineering	3	-	-	20	20	60	100	3	3		
4	BTITC504	Probability and Queuing Theory	3	-	-	20	20	60	100	3	3		
5		Elective III (Open)	3	-	-	20	20	60	100	3	3		
	BTITOE505A	Graph Theory											
	BTITOE505B	Human Computer Interaction											
	BTITOE505C	Game Theory											
6		Elective IV	3	-	-	20	20	60	100	3	3		
	BTITPE506A	Embedded Systems											
	BTITPE506B	IT Service Management											
	BTITPE506C	Information Storage Management											
	BTITPE506D	Network Management											
	BTITPE506E	Data Visualisation											
7	BTHM501	Constitution of India	2	-	-	-	50	50	-	-	100	Audit	2
8	BTITL507	Programming Lab (R Programming)	-	-	2	-	15	15	10	10	50	1	2
9	BTITL508	Database Management Systems Lab	-	-	2	-	15	15	10	10	50	1	2
10	BTITL509	Design and Analysis of Algorithms Lab	-	-	2	-	15	15	10	10	50	1	2
11	BTITS510	Seminar	-	-	2	-	30	10	10	50	1	2	
12	BTITF511	Field Training/Internship/ Industrial Training II Evaluation	-	-	-	-	-	-	50	50	1	-	
Summary of Semester Assessment Marks, Credits & Hours			20	-	8	120	340	490	950	23	28		
Semester VI													
1	BTITC601	Operating Systems	3	-	-	20	20	60	100	3	3		
2	BTITC602	Compiler Construction	3	-	-	20	20	60	100	3	3		
3	BTITC603	Object Oriented Software and Web Engineering	3	-	-	20	20	60	100	3	3		
4	BTITC604	Digital Image Processing	3	-	-	20	20	60	100	3	3		
5		Elective V (Open)	3	-	-	20	20	60	100	3	3		
	BTITOE605A	Enterprise Resource Planning											
	BTITOE605B	Decision Support Systems											
	BTITOE605C	Software Project Management											
6		Elective VI	3	-	-	20	20	60	100	3	3		
	BTITPE606A	Software Testing											
	BTITPE606B	Data Storage Technologies & Networks											
	BTITPE606C	Service Oriented Architecture											
	BTITPE606D	Network Programming											
	BTITPE606E	Advanced Database Technology											
7	BTITL607	Operating Systems Lab	-	-	2	-	15	15	10	10	50	1	2
8	BTITL608	Digital Image Processing Lab	-	-	2	-	15	15	10	10	50	1	2

9	Elective VI Lab		-	-	2	-	15	15	10	10	50	1	2
	BTITPEL609A	Software Testing Lab											
	BTITPEL609B	Data Storage Technologies & Networks Lab											
	BTITPEL609C	Service Oriented Architecture Lab											
	BTITPEL609D	Network Programming Lab											
	BTITPEL609E	Advanced Database Technology Lab											
10	BTITP610	Mini Project	-	-	2	-	30	10	10	50	1	2	
11	BTITF611	Field Training/Internship/ Industrial Training III (Minimum four weeks which can be completed partially in fifth semester and sixth semester or at one time)	-	-	-	-	-	-	-	-	*	-	
Summary of Semester Assessment Marks, Credit s & Hours			18	-	08	120	240	440	800	22	26		
*Evaluation in VII semester													

B. Tech. Mechanical Engineering
Course Structure for Semester III [Second Year] w.e.f. 2018-2019

Course Code	Type of Course	Course Title	Weekly Teaching Scheme			Evaluation Scheme				Credits
			L	T	P	CA	MSE	ESE	Total	
BTBSC301	BSC 7	Engineering Mathematics-III	3	1	--	20	20	60	100	4
BTMEC302	ESC 11	Materials Science and Metallurgy	3	1	--	20	20	60	100	4
BTMEC303	PCC 1	Fluid Mechanics	3	1	--	20	20	60	100	4
BTMEC304	PCC 2	Machine Drawing and CAD	2	--	--	20	20	60	100	2
BTMEC305	ESC 12	Thermodynamics	3	1	--	20	20	60	100	4
BTHM3401	HSMC 3	Basic Human Rights	2	--	--	50	--	--	50	Audit (AU/ NP)
BTMEL307	ESC 13	Materials Science and Metallurgy Lab	--	--	2	60	--	40	100	1
BTMEL308	PCC 3	Fluid Mechanics Lab	--	--	2	60	--	40	100	1
BTMEL309	PCC 4	Machine Drawing and CAD Lab	--	--	4	60	--	40	100	2
BTMEF310	Project 1	Field Training /Internship/Industrial Training I	--	--	--	--	--	50	50	1
Total			16	4	8	330	100	470	900	23

B. Tech. Mechanical Engineering

Course Structure for Semester IV [Second Year] w.e.f. 2018-2019

Course Code	Type of Course	Course Title	Weekly Teaching Scheme			Evaluation Scheme				Credits
			L	T	P	CA	MSE	ESE	Total	
BTMEC401	PCC 5	Manufacturing Processes - I	2	1	--	20	20	60	100	3
BTMEC402	PCC 6	Theory of Machines-I	3	1	--	20	20	60	100	4
BTMEC403	PCC 7	Strength of Materials	3	1	--	20	20	60	100	4
BTMEC404	BSC 8	Numerical Methods in Mechanical Engineering	2	1	--	20	20	60	100	3
BTID405	PCC 8	Product Design Engineering – I	1	--	2	60	--	40	100	2
BTBSE406A	OEC 1	Physics of Engineering Materials	3	--	--	20	20	60	100	3
BTBSE3405A		Advanced Engineering Chemistry								
BTHM3402		Interpersonal Communication Skill & Self Development								
BTMEL407	PCC 9	Manufacturing Processes Lab – I	--	--	2	60	--	40	100	1
BTMEL408	PCC 10	Theory of Machines Lab- I	--	--	2	60	--	40	100	1
BTMEL409	PCC 11	Strength of Materials Lab	--	--	2	60	--	40	100	1
BTMEL410	BSC 9	Numerical Methods Lab	--	--	2	60	--	40	100	1
Total			14	4	10	400	100	500	1000	23

Minimum 4 weeks training which can be completed partially in third and fourth semester or in at one time.

B. Tech. Mechanical Engineering
Course Structure for Semester V [Third Year] w.e.f. 2019-2020

Course Code	Type of Course	Course Title	Weekly Teaching Scheme			Evaluation Scheme				Credits
			L	T	P	CA	MSE	ESE	Total	
BTMEC501	PCC 12	Heat Transfer	3	1	--	20	20	60	100	4
BTMEC502	PCC 13	Applied Thermodynamics – I	2	1	--	20	20	60	100	3
BTMEC503	PCC 14	Machine Design – I	2	1	--	20	20	60	100	3
BTMEC504	PCC 15	Theory of Machines- II	3	1	--	20	20	60	100	4
BTMEC505	PCC 16	Metrology and Quality Control	2	1	--	20	20	60	100	3
BTID506	PCC 17	Product Design Engineering - II	1	--	2	60	--	40	100	2
BTMEC506A	OEC 2	Automobile Engineering	3	--	--	--	--	--	--	Audit (AU/ NP)
BTMEC506B		Nanotechnology								
BTMEC506C		Energy Conservation and Management								
BTMEL507	PCC 18	Heat Transfer Lab	--	--	2	30	--	20	50	1
BTMEL508	PCC 19	Applied Thermodynamics Lab	--	--	2	30	--	20	50	1
BTMEL509	PCC 20	Machine Design Practice- I	--	--	2	30	--	20	50	1
BTMEL510	PCC 21	Theory of Machines Lab- II	--	--	2	30	--	20	50	1
BTMEF511	Project 2	Field Training /Internship/Industrial Training II	--	--	--	--	--	50	50	1
Total			16	5	10	280	100	470	850	24

B. Tech. Mechanical Engineering
Course Structure for Semester VI [Third Year] w.e.f. 2019-2020

Course Code	Type of Course	Course Title	Weekly Teaching Scheme			Evaluation Scheme				Credits
			L	T	P	CA	MSE	ESE	Total	
BTMEC601	PCC 22	Manufacturing Processes- II	2	1	--	20	20	60	100	3
BTMEC602	PCC 23	Machine Design-II	3	1	--	20	20	60	100	4
BTMEC603	PCC 24	Applied Thermodynamics- II	2	1	--	20	20	60	100	3
BTMEC604A	PEC 1	Engineering Tribology	2	1	--	20	20	60	100	3
BTMEC604B		IC Engines								
BTMEC604C		Additive Manufacturing								
BTMEC604D		Mechanical Measurements								
BTMEC605A	OEC 3	Quantitative Techniques in Project Management	3	--	--	20	20	60	100	3
BTMEC605B		Sustainable Development								
BTMEC605C		Renewable Energy Sources								
BTMEC606A	OEC 4	Biology for Engineers	3	--	--	--	--	--	--	Audit (AU/ NP)
BTMEC606B		Solar Energy								
BTMEC606C		Human Resource Management								
BTMEL607	PCC 25	Metrology and Quality Control Lab	--	--	2	30	--	20	50	1
BTMEL608	PCC 26	Machine Design Practice-II	--	--	2	30	--	20	50	1
BTMEL609	PCC 27	IC Engine Lab	--	--	2	30	--	20	50	1
BTMEL610	PCC 28	Refrigeration and Air Conditioning Lab	--	--	2	30	--	20	50	1
BTMEM611	Project 3	Technical Project for Community Services	--	--	4	30	--	20	50	2
Total			15	4	12	250	100	400	750	22