

DEPARTMENT OF ELECTRICAL ENGINEERING B. TECH. CURRICULUM

1st YEAR 1st SEMESTER

Sl	Category	Paper	Name of the name	Per	riods	per w	eek	Credit
no	Index	code	Name of the paper	L	T	P	Total	Credit
1	ESC	ME 101	Engineering Mechanics	3	1	0	4	4
2	ESC	EE 101	Basic Electrical Engineering	3	0	0	3	3
3	BSC	MA 133	Engineering Mathematics I	4	0	0	4	4
4	BSC	PH 151	Engineering Physics	3	0	0	3	3
5	ESC	CE 191	Engineering Graphics & Design	0	1	3	4	2.5
6	ESC	EE 191	Basic Electrical Engineering Lab	0	0	3	3	1.5
7	BSC	PH 161	Engineering Physics Lab	0	0	3	3	1.5
8	MC	AI 131	Elementary Arabic & Islamic Studies	4	0	0	4	0
	TOTAL PERIOD PER WEEK							28
			TOTAL CREDIT					19.5

1st YEAR 2nd SEMESTER

Sl	Category	Paper	Nome of the name	Per	riods	per w	eek	Credit
no	Index	code	Name of the paper	L	T	P	Total	Credit
1	ESC	CSE 102	Programming for Problem Solving	3	0	0	3	3
2	ESC	ECE 102	Basic Electronics Engineering	3	0	0	3	3
3	BSC	MA 134	Engineering Mathematics II	4	0	0	4	4
4	BSC	CH 152	Engineering Chemistry	3	0	0	3	3
5	HSMC	EN 132	Communicative English	3	3 0 0 3		3	
6	ESC	CSE 192	Programming for Problem Solving Lab	0	0	4	4	2
7	ESC	ECE 192	Basic Electronics Engineering Lab	0	0	3	3	1.5
8	ESC	ME 192	Workshop Practice	0	1	2	3	2
9	BSC	CH 162	Engineering Chemistry Lab	0	0	3	3	1.5
10	HSMC	EN 192	Language Lab	0	0	2	2	1
		7	TOTAL PERIOD PER WEEK	•				31
			TOTAL CREDIT					24



DEPARTMENT OF ELECTRICAL ENGINEERING B. TECH. CURRICULUM

2nd YEAR 3rd SEMESTER

Sl	Category	Paper	Name of the paper	Pe	riods	per w	eek	Credit
no	Index	code	Name of the paper	L	T	P	Total	Credit
1	PCC	EE 201	Electrical Network Analysis	3	1	0	4	4
2	PCC	EE 203	Electromagnetic Fields 3 0 0 3		3			
3	PCC	ECE 231	Analog Electronics 3 0 0 3		3			
4	OEC	*	Open Elective I	3	0	0	3	3
5	BSC	MA 233	Engineering Mathematics III	4	0	0	4	4
6	MC	IC 231	Indian Constitution	2	0	0	2	0
7	PCC	EE 291	Electrical Network Analysis Lab	0	0	3	3	1.5
8	PCC	ECE 291	Analog Electronics Lab	0	0	3	3	1.5
9	PCC	*	Computational Lab	0	0	3	3	1.5
		,	TOTAL PERIOD PER WEEK					28
			TOTAL CREDIT					21.5

2nd YEAR 4TH SEMESTER

Sl	Category	Paper	Name of the paper	Pe	riod	s per	week	Credit
no	Index	code	Name of the paper		T	P	Total	Credit
1	PCC	EE 202	Electrical Machines I	3	1	0	4	4
2	PCC	EE 204	Electrical & Electronic Measurements	4	0	0	4	4
3	PCC	ECE 232	Digital Electronics & Logic Design	3	0	0	3	3
4	OEC	*	Open Elective II	3	0	0	3	3
5	BSC	BIO 252	Biology for Engineers	2	0	0	2	2
6	MC	ES 232	Environmental Science	2	0	0	2	0
7	PCC	EE 294	Measurement Lab	0	0	3	3	1.5
8	PCC	ECE 292	Digital Electronics & Logic Design Lab	0	0	3	3	1.5
		7	TOTAL PERIOD PER WEEK					24
			TOTAL CREDIT					19



DEPARTMENT OF ELECTRICAL ENGINEERING B. TECH. CURRICULUM

3rd YEAR 5th SEMESTER

Sl	Category	Paper	Name of the name	Per	riods	per v	week	Credit
no	Index	code	Name of the paper	L	T	P	Total	Crean
1	PCC	EE 301	Power Electronics 3		1	0	4	4
2	PCC	EE 303	Control Systems	3	0	0	3	3
3	PCC	EE 305	Power System I	3	0	0	3	3
4	PEC	*	Professional Elective I	3	0	0	3	3
5	OEC	*	Open Elective III	3	0	0	3	3
6	PCC	EE 391	Power Electronics Lab	0	0	3	3	1.5
7	PCC	EE 393	Control Systems Lab	0	0	3	3	1.5
8	PEC	*	Professional Elective Lab I	0	0	3	3	1.5
			TOTAL PERIOD PER WEEK			•		25
			TOTAL CREDIT					20.5

3rd YEAR 6th SEMESTER

Sl	Category	Paper	Name of the name	Per	riods j	per v	veek	Credit
no	Index	code	Name of the paper		T	P	Total	Credit
1	PCC	EE 302	Electrical Machines II	3	1	0	4	4
2	PCC	EE 304	Power System II	3	0	0	3	3
3	PEC	*	Professional Elective II	3	0	0	3	3
4	PEC	*	Professional Elective III	3	0	0	3	3
5	OEC	*	Open Elective IV	3	0	0	3	3
6	PCC	EE 392	Electrical Machines Lab II	0	0	3	3	1.5
7	PCC	EE 394	Power System Lab	0	0	3	3	1.5
			TOTAL PERIOD PER WEEK					22
	TOTAL CREDIT							19

*** A student must undergo summer internship of 2-4 week duration during the break after 6th semester (before commencement of 7th semester). The same will be evaluated during 7th semester.



DEPARTMENT OF ELECTRICAL ENGINEERING B. TECH. CURRICULUM

4th YEAR 7th SEMESTER

Sl	Category	Paper	Name of the name	Per	riods j	per v	veek	Cua di4
no	Index	code	Name of the paper	L	T	P	Total	Credit
1	PEC	*	Professional Elective IV	3	0	0	3	3
2	PEC	*	Professional Elective V	3	0	0	3	3
3	OEC	*	Open Elective V	3	0	0	3	3
4	HSMC	MS 431	Industrial Economics & Management	4	0	0	4	4
5	PEC	*	Professional Elective Lab II	0	0	3	3	1.5
6	PROJ	EE 481	Summer Internship	-	-	-	1	2
7	PROJ	EE 471	Project I	0	0	8	8	4
			TOTAL PERIOD PER WEEK					24
			TOTAL CREDIT					20.5

4th YEAR 8th SEMESTER

Sl	Category	Paper	Name of the paper	Per	iods	per v	veek	Credit
no	no Index code		Name of the paper	L	T	P	Total	Credit
1	PEC	*	Professional Elective VI		0	0	3	3
2	OEC	*	Open Elective VI	3	0	0	3	3
3	HSMC	MS 432	Professional Values & Ethics	2	0	0	2	2
4	PROJ	EE 472	Project II	0	0	16	16	8
5	PCC	EE 474	Grand Viva	-	-	-	-	2
			TOTAL PERIOD PER WEEK					24
			TOTAL CREDIT					18



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Professional Elective Courses (PEC)

PEC I	A. Microprocessor & Microcontroller
	B. Numerical methods
PEC II	A. Electric Drives
	B. Switchgear & Protection
PEC III	A. Modern Control System
	B. Power Plant Engineering
	C. Special Machines
PEC IV	A. Transducers & Instrumentation
	B. Utilization of Electric Power
	C. Illumination Engineering
PEC V	A. High Voltage Engineering
	B. Renewable Energy
	C. Estimation, Costing and Specification
	of Electrical Equipments
PEC VI	A. Electrical Machine Design
	B. Process Control
	C. Energy Management & Audit

Professional Elective Course (PEC) LAB

PEC LAB I	A. Microprocessor & Microcontroller Lab
	B. Numerical methods Lab
PEC LAB II	A. Electric Drives Lab
	B. Switchgear & Protection Lab

Desirable Open Elective Courses as may be offered by different departments

- 1. Data Structure & Algorithm
- 2. Hydraulics & Pneumatic Machines
- 3. Thermodynamics
- 4. Object Oriented Programming
- 5. Digital Signal Processing
- 6. Steam Power Engineering
- 7. Artificial Intelligence & Soft Computing
- 8. Sensors & Transducers
- 9. Machine Learning
- 10. Fluid Mechanics
- 11. Power System Planning
- 12. Electrical Power Generation

Summary of Credits

				•				
1 st	2^{nd}	3 rd	4 th	5 th	6 th	7^{th}	8 th	Total
Semester	Semester	10tai						
19.5	24	21.5	19	20.5	19	20.5	18	162



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Semester wise Credit Segregation

Semester	HSMC	BSC	ESC	PCC	PEC	OEC	PROJ	MC	TOTAL
1 st	-	8.5	11	-	-	-	-	√	19.5
2 nd	4	8.5	11.5	-	-	-	-	Х	24
3 rd	-	4	-	14.5	-	3	-	V	21.5
4 th	-	2	-	14	-	3	-	$\sqrt{}$	19
5 th	-	-	-	13	4.5	3	-	X	20.5
6 th	-	-	-	10	6	3	=	X	19
7 th	4	-	-	-	7.5	3	6	X	20.5
8 th	2	-	-	2	3	3	8	Х	18
TOTAL	10	23	22.5	53.5	21	18	14	0	162

Category Index	Category name
HSMC	Humanities and social science including management
BSC	Basic Science course
ESC	Engineering Science course
PCC	Professional core courses
PEC	Professional elective courses
OEC	Open elective course
PROJ	Project, seminar, internship in industry
MC	Mandatory courses