Curriculum Structure and Syllabus
of
Third Year B. Tech. Computer Engineering
(2025 Pattern)

VISION OF THE INSTITUTE

To be a notable institution for providing quality technical education and ensuring ethical, moral and holistic development of students.

MISSION OF THE INSTITUTE

To nurture engineering graduates with state of the art competence, professionalism and problem solving skills to serve needs of industry as well as society.

VISION OF COMPUTER ENGINEERING

Imbibing Quality Technical Education and Overall Development by Endowing Students with Societal and Ethical skills in Computer Engineers.

MISSION OF COMPUTER ENGINEERING

- To impart engineering knowledge and skills by adopting effective teaching learning processes.
- To develop professional, entrepreneurial & research competencies encompassing continuous intellectual growth.
- To produce educated students to exhibit societal and ethical responsibilities in the working environment.

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COURSE-WISE CREDIT DISTRIBUTION

Sr. No.	Type of Course	No. of Courses	Total Credits	
			No.	%
1.	Basic Science Course (BSC)	8	14	8.14
2.	Engineering Core Course (ECC)	10	15	8.72
3.	Programme Core Course (PCC)	28	54	31.40
4.	Programme Elective Course (PEC)	9	20	11.63
5.	Multidisciplinary Minor (MDM)	7	13	7.56
6.	Open Elective Course (OEC)	3	8	4.65
7.	Vocational and Skill Enhancement Course (VSEC)	4	8	4.65
8.	Ability Enhancement Course (AEC)	2	4	2.33
9.	Entrepreneurship / Management Course(EMC)	2	4	2.33
10.	Value Education Course (VEC)	2	4	2.33
11.	Experiential Learning Courses	8	22	12.79
12.	Indian Knowledge System	1	2	1.16
13.	Co-curricular Courses	2	4	2.33
	TOTAL	**86**	**172**	**100**

Curriculum Structure: T.Y. B.Tech. Computer Engineering

SEMESTER-WISE COURSE DISTRIBUTION

	COURSE DISTRIBUTION: SEMESTER WISE									
SR NO.	**TYPE OF COURSE**	**NO. OF COURSES / SEMESTER**								**Total**
		1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	
1.	Basic Science Course (BSC)	4	4	-	-	-	-	-	-	8
2.	Engineering Science Course (ESC)	6	4	-	-	-	-	-	-	10
3.	Programme Core Course (PCC)	-	2	5	5	5	5	4	2	28
4.	Programme Elective Course (PEC)	-	2	-	-	2	3	2	2	11
5.	Multidisciplinary Minor (MDM)	-	-	1	1	2	1	-	2	7
6.	Open Elective Course (OEC)	-	-	1	1	1	-	-	-	3
7.	Vocational and Skill Enhancement Course (VSEC)	1	1	1	1	-	-	-	-	4
8.	Ability Enhancement Course (AEC)	1	1	-	1	-	-	-	-	3
9.	Entrepreneurship / Management Course(EMC)	-	-	1	1	-	-	-	-	2
10.	Value Education Course (VEC)	-	-	1	1	-	-	-	-	2
11.	Experiential Learning Courses	-	-	-	1	1	1	1	1	5
12.	Indian Knowledge System	-	1	-	-	-	-	-	-	1
13.	Co-curricular Courses	1	1	-	-	-	-	-	-	2
Total		**13**	**16**	**10**	**12**	**11**	**10**	**07**	**07**	**86**

Curriculum Structure: T.Y. B.Tech. Computer Engineering

SEMESTER-WISE CREDIT DISTRIBUTION

	COURSE DISTRIBUTION: SEMESTER WISE									
	1 Lecture hour = 1 Credit, 2 Lab Hours = 1 Credit, 1 Tutorial Hour = 1 Credit									
SR NO.	**TYPE OF COURSE**	**NO. OF COURSES / SEMESTER**								**Total**
		1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	
1.	Basic Science Course (BSC)	7	7	-	-	-	-	-	-	14
2.	Engineering Science Course (ESC)	9	6	-	-	-	-	-	-	15
3.	Programme Core Course (PCC)	-	3	10	10	10	8	8	4	53
4.	Programme Elective Course (PEC)	-	-	-	-	4	8	4	4	20
5.	Multidisciplinary Minor (MDM)	-	-	2	2	4	2	-	4	14
6.	Open Elective Course (OEC)	-	-	4	2	2	-	-	-	8
7.	Vocational and Skill Enhancement Course (VSEC)	2	2	2	2	-	2	-	-	10
8.	Ability Enhancement Course (AEC)	2	-	-	2	-	-	-	-	4
9.	Entrepreneurship / Management Course(EMC)	-	-	2	2	-	-	-	-	4
10.	Value Education Course (VEC)	-	-	2	-	-	-	-	-	2
11.	Experiential Learning Courses	-	-	-	2	2	2	8	8	22
12.	Indian Knowledge System	-	2	-	-	-	-	-	-	2
13.	Co-curricular Courses	2	2	-	-	-	-	-	-	4
Total		**22**	**22**	**22**	**22**	**22**	**22**	**20**	**20**	**172**

Curriculum Structure: T.Y. B.Tech. Computer Engineering

Sr. No.	Course Code	Course Type	Course Name	Credits TH	Credits TUT	Credits PR	Teaching Scheme (Hours/Week) L	Teaching Scheme (Hours/Week) T	Teaching Scheme (Hours/Week) P	CCE UT 25	CCE FA 25	ESE SA 50	PR	OR	TW	TOTAL

Level 5.5

Third Year B. Tech Computer Engineering

Semester V

Sr. No.	Course Code	Course Type	Course Name	TH	TUT	PR	L	T	P	UT 25	FA 25	SA 50	PR	OR	TW	TOTAL
1	CE25PCC-301	Programme Core Course	Theory of Computation	2			2			25	25	50				**100**
2	CE25PCC-302	Programme Core Course	Big Data Processing	2			2			25	25	50				**100**
3	CE25PCC-303	Programme Core Course	Big Data Processing Laboratory			2			4				50		25	**75**
4	CE25PCC-304	Programme Core Course	Web Technologies	2			2			25	25	50				**100**
5	CE25PCC-305	Programme Core Course	Web Technologies Laboratory			2			4				25		25	**50**
6	CE25PEC-306	Programme Elective Course	Programme Elective Course -I	3			3			25	25	50				**100**
7	CE25PEC-307	Programme Elective Course	Programme Elective Course -I Laboratory			1			2					50		**50**
8	CE25MDM-308	Multi-disciplinary Minor	Internet of Things	3			3			25	25	50				**100**
9	CE25MDM-309	Multi-disciplinary Minor	Internet of Things Laboratory			1			2						25	**25**
10	--	Open Elective Course	Open Elective course-II		1	1		1	2						25	**25**
11	CE25ELC-311	Experiential Learning Course (Research Methodology)	Research Methodology - I			2			4						25	**25**
	TOTAL			**12**	**1**	**9**	**12**	**1**	**18**	**125**	**125**	**250**	**75**	**50**	**125**	**750**
				22			**31**									

CCE- Comprehensive Continuous Evaluation**, ESE-** End Semester Evaluation, **TW**-Term Work, **OR**-Oral, **PR**-Practical, **TH**- Theory**, L**-Lecture, **T/TUT**-Tutorial, **UT**- Unit Test, **FA**–Formative Assessment, **SA** – Summative Assessment

Curriculum Structure: T.Y. B.Tech. Computer Engineering

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Basket: List of Courses – Programme Elective Course-I

Course Code	Course Name	
CE25PEC-306A	Information Security	
CE25PEC-306B	Data Mining and Warehousing	Choose Any One
CE25PEC-306C	Software Testing and Quality Assurance	
CE25PEC-306D	Computer Graphics and Gaming	

Basket: List of Courses – Open Elective Course-II

Course Code	Course Name	
CE25OEC-310	Fundamentals of FinTech	
ME25OEC-310	Supply Chain Management	Choose Any One
ETC25OEC-310	Industrial Organization and Management	

Curriculum Structure: T.Y. B.Tech. Computer Engineering

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CURRICULUM STRUCTURE
Third Year B. Tech. Computer Engineering
Semester – VI

				Level 5.5												
				Third Year B. Tech Computer Engineering												
				Semester VI												
Sr. No.	Course Code	Course Type	Course Name	Credits			Teaching Scheme (Hours/Week)			Examination Scheme and Marks						
										CCE		ESE				
				TH	TUT	PR	L	T	P	UT	FA	SA	PR	OR	TW	TOTAL
										25	25	50				
1	CE25PCC-351	Programme Core Course	Computer Network	2			2			25	25	50				100
2	CE25PCC-352	Programme Core Course	Computer Network Laboratory			1			2				25		25	50
3	CE25PCC-353	Programme Core Course	Machine Learning	2			2			25	25	50				100
4	CE25PCC-354	Programme Core Course	Machine Learning Laboratory			1			2				25		25	50
5	CE25PCC-355	Programme Core Course	Design and Analysis of Algorithm	2			2			25	25	50				100
6	CE25PEC-356	Programme Elective Course	Programme Elective Course -II	3			3			25	25	50				100
7	CE25PEC-357	Programme Elective Course	Programme Elective Course -II Laboratory			2			4					50		50
8	CE25PEC-358	Programme Elective Course	Programme Elective Course --III	3			3			25	25	50				100
9	CE25MDM-359	Multi-disciplinary Minor	Industry 4.0		1	1		1	2						25	25
10	CE25VSEC-360	Vocational and Skill Enhancement Course	Vocational and Skill Enhancement Course-II			2			4						25	25
11	CE25ELC-361	Experiential Learning Course	Internship			2			4					25	25	50
	TOTAL			12	1	9	12	1	18	125	125	250	50	75	125	750
				22			31									

CCE- Comprehensive Continuous Evaluation, **ESE**- End Semester Evaluation, **TW**-Term Work, **OR**-Oral, **PR**-Practical, **TH**- Theory, **L**-Lecture, **T/TUT**-Tutorial, **UT**- Unit Test, **FA**–Formative Assessment, **SA** – Summative Assessment

Curriculum Structure: T.Y. B.Tech. Computer Engineering

Basket: List of Courses – Programme Elective Course-II

Course Code	Course Name	
CE25PEC-356A	Network and Web Security	
CE25PEC-356B	Data Visualization and Business Analytics	Choose Any One
CE25PEC-356C	Agile Project Management	
CE25PEC-356D	Image and Video Processing	

Basket: List of Courses – Programme Elective Course-III

Course Code	Course Name	
CE25PEC-358A	Artificial Intelligence	
CE25PEC-358B	Green Innovation for Businesses with AI	Choose Any One
CE25PEC-358C	Human Computer Interaction	

Basket: List of Courses – Vocational & Skill Enhancement Course-II

Course Code	Course Name	
CE25VSEC-360A	Application Development with Java	
CE25VSEC-360B	Mobile Application Development with Flutter	Choose Any One
CE25VSEC-360C	Android Application Development with Kotlin	

Curriculum Structure: T.Y. B.Tech. Computer Engineering