

NUTAN MAHARASHTRA VIDYA PRASARAK MANDAL'S

**NUTAN MAHARASHTRA INSTITUTE OF ENGINEERING
AND TECHNOLOGY**

AN AUTONOMOUS INSTITUTE | UNDER ADMINISTRATIVE SUPPORT OF PCET



**Curriculum Structure and Syllabus
of
B.Tech. Computer Science and 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 SCIENCE and ENGINEERING

To be a premier place of education in Computer Science and Engineering, preparing graduates with commendable knowledge, excellent skills and commitment to build a flourishing nation & world.

MISSION OF COMPUTER SCIENCE and ENGINEERING

- To inculcate experiential learning with contemporary software skills.
 - To prepare students to satisfy industry, R&D demands and solves real life problems.
 - To imbibe sense of societal and ethical responsibilities amongst learners.
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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

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

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

B. Tech. Computer Science and Engineering

Semester – V

Level 6.0																	
Fourth Year B. Tech Computer Science and Engineering																	
Semester VII																	
Sr. No.	Course Code	Course Type	Course Name	Credit Scheme			Teaching Scheme (Hours/Week)			Examination Scheme and Marks							
				TH	TUT	PR	L	TUT	PR	CCE		ESE		PR	OR	TW	TOTAL
										UT	FA	SA					
										25	25	50					
1	CSE25PCC-401	Programme Core Course	Cloud Computing	2			2				25	25	50				100
2	CSE25PCC-402	Programme Core Course	Cloud Computing Lab			2			4					25		25	50
3	CSE25PCC-403	Programme Core Course	Deep Learning	2			2				25	25	50				100
4	CSE25PCC-404	Programme Core Course	Deep Learning Laboratory			2			4					25		25	50
5	CSE25PEC-405	Programme Elective Course	Programme Elective Course IV	3			3				25	25	50				100
6	CSE25PECL-406	Programme Elective Course	Programme Elective Course Laboratory IV			1			2						25	25	50
7	CSE25ELC-407	Experiential Learning/Internship/OJT	Internship			6			12						100	100	200
8	CSE25ELC-408	Experiential Learning/Internship/OJT	Project Stage I			2			4						50	50	100
TOTAL				7		13	7		26		75	75	150	50	175	225	750
				22			33										

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

Semester – VII

Basket: List of Courses – Programme Elective Course-IV

Course Code	Course Name	
CSE25PEC-405A	Block Chain Technology	Choose Any One
CSE25PEC-405B	Natural Language Programming	
CSE25PEC-405C	Business Intelligence	

Basket :List of Courses - Programme Elective Courses Laboratory -IV

Course Code	Course Name	
CSE25PECL-406A	Block Chain Technology Laboratory	Choose Any One
CSE25PECL-406B	Natural Language Programming Laboratory	
CSE25PECL-406C	Business Intelligence Laboratory	

CURRICULUM STRUCTURE
Fourth Year B.Tech. Computer Science and Engineering
Semester – VIII

Level 6.0																		
Fourth Year B. Tech Computer Science and Engineering																		
Semester VIII																		
Sr. No	Course Code	Course Type	Course Name	Credit Scheme			Teaching Scheme (Hours/Week)			Examination Scheme and Marks								
				TH	TUT	PR	L	T	P	CCE		ESE	PR	OR	TW	TOTAL		
										UT	FA	SA						
										25	25	50						
1	CSE25PCC-451	Programme Core Course	Distributed Systems	2			2				25	25	50				100	
2	CSE25PCC-452	Programme Core Course	Distributed Systems Laboratory			2			4					25		25	50	
3	CSE25PEC-453	Programme Elective Course	Programme Elective Course -V	3			3				25	25	50				100	
4	CSE25PEC-454	Programme Elective Course	Programme Elective Course Lab -V			1			2					25		25	50	
5	CSE25MDM-455	Multidisciplinary Course	Wireless Sensor Networks	2			2				25	25	50				100	
6	CSE25MDM-456	Multidisciplinary Course	Wireless Sensor Networks			2			4						25	25	50	
7	CSE25ELC-457	Experiential Learning/Internship/OJT	Internship			4			8						100	50	50	
8	CSE25ELC-458		Innovations and Inventions - Research Methodology - I			2			4								50	150
9	CSE25ELC-459		Project Stage- II			2			4						50	50	100	
TOTAL				7		13	7		26		75	75	150	50	175	225	750	
				20			33											

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

Semester – VIII

Basket: List of Courses – Programme Elective Course-V

Course Code	Course Name	
CSE25PEC-453A	DevOps	Choose Any One
CSE25PEC-453B	Generative AI	
CSE25PEC-453C	Image Processing	

Basket : List of Courses - Program Elective Courses Laboratory -V

Course Code	Course Name	
CSE25PECL-454A	DevOps Laboratory	Choose Any One
CSE25PECL-454B	Generative AI Laboratory	
CSE25PECL-454C	Image Processing Laboratory	