

Structure

for

B. Tech. Information Technology

(2025 Pattern)

S. Y. B. Tech. Information Technology
Curriculum Pattern: 2025
 (Level 5.0) -Semester – III

S.N.	Course Category (Course Subcategory)	Course Code	Course title	Teaching Scheme, Classroom Contact hr/week (contact hr/semester)			Self-learning(Contact hours/semester)	Total Classroom Contact hr/week (Contact hr/)	Credit (Total contact of semester /30)	Examination scheme (Marks)				
										Continuous Assessment			Semester End Examination	Total Marks
				L	T	P	SL	Hr	C	TA1	MSE	TA2	ESE	
1	BSC (MDM-I)	ES2303T	Probability & Statistics	3 (45)	1 (15)	0	- (60)	4 (120)	4	10	30	10	50	100
2	PCC	IT2301T	Computer Organization and Architecture	3 (45)	0	0	- (45)	3 (90)	3	10	30	10	50	100
3	PCC	IT2302T	Software Engineering and Design	3 (45)	0	0	- (45)	3 (90)	3	10	30	10	50	100
4	PCC	IT2303T	Fundamentals of Data Structure	3 (45)	0	0	- (45)	3 (90)	3	10	30	10	50	100
5	PCC	IT2303L	Fundamentals of Data Structure Lab	0	0	2 (16)	- (14)	2 (30)	1	10	10	10	20	50
6	PCC	IT2304T	Operating Systems	3 (45)	0	0	- (45)	3 (90)	3	10	30	10	50	100
7	PCC	IT2304L	Operating Systems Laboratory	0	0	2 (16)	- (14)	2 (30)	1	10	10	10	20	50
8	PR(MDM-II)	IT2305L	Design Thinking and Innovation Lab	0	0	4 (40)	- (20)	4 (60)	2	20	20	20	40	100
9	PCC	IT2306L	Programming Lab-I: Python	0	0	2 (16)	- (14)	2 (30)	1	10	10	10	20	50
10	CCA (VSEC)	IT2307L	Extra-Curricular (Hackathon/NSS/ Sports/Selected Club activity)	0	0	2 (16)	- (14)	2 (30)	1	10	10	10	20	50
Total				15	1	12	-	28	22	110	210	110	370	800

Note: all marked are scaled down marks TA1: Teacher's Assessment 1, TA2: Teacher's Assessment 2, MSE: Mid Semester Examination, ESE: End Semester Examination

S. Y. B. Tech. Information Technology
Curriculum Pattern: 2025
(Level 5.0) -Semester – IV

S.N.	Course Category (Course Subcategory)	Course Code	Course title	Teaching Scheme, Classroom Contact hr/week (contact hr/semester)			Self-learning(Contact hours/semester)	Total Classroom Contact hr/week (Contact hr/)	Credit (Total contact of semester /30)	Examination scheme (Marks)				
										Continuous Assessment			Semester End Examination	Total Marks
				L	T	P				TA1	MSE	TA2	ESE	
1	BSC	IT2308T	AI Foundations and Future Technologies	3 (45)	0	0	- (45)	3 (90)	3	10	30	10	50	100
2	PCC	IT2309T	Formal Language and Automata Theory	3 (45)	0	0	- (45)	3 (90)	3	10	30	10	50	100
3	PCC	IT2310T	Data Structures and Algorithms	3 (45)	0	0	- (45)	3 (90)	3	10	30	10	50	100
4	PCC	IT2310L	Data Structures and Algorithms Laboratory	0	0	2 (16)	- (14)	2 (30)	1	10	10	10	20	50
5	PCC	IT2311T	Computer Network	3 (45)	0	0	- (45)	3 (90)	3	10	30	10	50	100
6	PCC	IT2311L	Computer Network Laboratory	0	0	2 (16)	- (14)	2 (30)	1	10	10	10	20	50
7	HSSM(VEC)	HS2301T	Universal Human Values and Professional Ethics	2 (30)	1 (15)	0	- (45)	3 (90)	3	20*	30*	20	30	100
8	ESC MDM-III	IT2312L	Web Technology Lab	0	0	4 (40)	- (20)	4 (60)	2	20	20	20	40	100
9	PCC	IT2313L	Programming Lab II: Advanced Python	0	0	4 (40)	- (20)	4 (60)	2	20	20	20	40	100
10	PCC	IT2314L	Seminar on Emerging Trends and Technology	0	0	2 (16)	- (14)	2 (30)	1	10	10	10	20	50
Total				14	1	14	-	29	22	110	190	130	370	850

* :- No pen paper exam (Taken during tutorial)

T. Y. B. Tech. Information Technology
Curriculum Pattern: 2025
 (Level 5.5) -Semester – V

S. N.	Course Category (Course Subcategory)	Course Code	Course title	Teaching Scheme, Classroom Contact hr/week (contact hr/semester)			Self-learning(Contact hours/semester)	Total Classroom Contact hr/week (Contact hr/ semester)	Credit (Total contact of semester /30)	Examination scheme (Marks)				
										Continuous Assessment			Semester End Examination	Total Marks
				L	T	P	SL	Hr	C	TA1	MSE	TA2	ESE	
1	PCC	IT3301T	Database Management System	3 (45)	0	0	- (45)	3 (90)	3	10	30	10	50	100
2	PCC	IT3301L	Database Management System Laboratory	0	0	2 (16)	- (14)	2 (30)	1	10	10	10	20	50
3	PCC	IT3302T	Design and Analysis of Algorithm	3 (45)	0	0	- (45)	3 (90)	3	10	30	10	50	100
4	PCC	IT3302L	Design and Analysis of Algorithm Laboratory	0	0	2 (16)	- (14)	2 (30)	1	10	10	10	20	50
5	PCC	IT3303T	Cloud Computing	3 (45)	0	0	- (45)	3 (90)	3	10	30	10	50	100
6	PCC	IT3303L	Cloud Computing Laboratory	0	0	2 (16)	- (14)	2 (30)	1	10	10	10	20	50
7	OE	IT3304T	Open Elective-I	3 (45)	0	0	- (45)	3 (90)	3	25			75	100
8	ESC VEC (MDM-IV)	ES3301T	Environmental Systems and Sustainability Engineering	3 (45)	0	0	- (45)	3 (90)	3	10	30	10	50	100
9	PCC	IT3305L	Data Science and Visualization Lab	0	0	2 (16)	- (14)	2 (30)	1	10	10	10	20	50
10	PCC	IT3306L	Programming Lab III (Java Programming)	0	0	4 (40)	- (20)	4 (60)	2	20	20	20	40	100
11	PW(RM)	IT3307L	Engineering Innovation and Society – 1 (Capstone Project Phase 1)	0	0	2 (16)	- (14)	2 (30)	1	10	10	10	20	50
Total				15	-	14	-	29	22	110	215	110	415	850

T. Y. B. Tech. Information Technology
Curriculum Pattern: 2025
(Level 5.5) Semester – VI

S.N.	Course Category (Course Subcategory)	Course Code	Course title	Teaching Scheme, Classroom Contact hr/week (contact hr/semester)			Self-learning(Contact hours/semester)	Self-learning(Contact hours/semester)	Total Classroom Contact hr/week (Contact hr/ semester)	Examination scheme (Marks)				
										Continuous Assessment			Semester End Examination	Total Marks
				L	T	P	SL	Hr	C	TA1	MSE	TA2	ESE	
1	PCC	IT3308T	Machine Learning	3 (45)	0	0	- (45)	3 (90)	3	10	30	10	50	100
2	PCC	IT3308L	Machine Learning Laboratory	0	0	2 (16)	- (14)	2 (30)	1	10	10	10	20	50
3	PCC	IT3309T	Information and Cyber Security	3 (45)	0	0	- (45)	3 (90)	3	10	30	10	50	100
4	PCC	IT3309L	Information and Cyber Security Lab	0	0	2 (16)	- (14)	2 (30)	1	10	10	10	20	50
5	OE	IT3310T	Open Elective-II	3 (45)	0	0	- (45)	3 (90)	3	25			75	100
6	PE	IT3311T	Program Elective-I	3 (45)	0	0	- (45)	3 (90)	3	10	30	10	50	100
7	PE	IT3311L	Program Elective-I Laboratory	0	0	2 (16)	- (14)	2 (30)	1	10	10	10	20	50
8	ESC MDM-IV AEC	HS3301T	Economics for Engineers: Markets, Policy and Development	3 (45)	0	0	- (45)	3 (90)	3	10	30	10	50	100
9	ESC (VSEC)	IT3312L	Workplace Communication and Analytical Skill	0	0	2 (16)	- (14)	2 (30)	1	10	10	10	20	50
10	PW(AEC)	IT3313L	Engineering Innovation and Society – 2 (Capstone Project-phase 2)	0	0	6 (60)	- (30)	6 (90)	3	30	30	30	60	150
Total				15	-	14	-	29	22	110	215	110	415	850

Program Elective I		Program Elective I Lab	
Course Code	Course Name	Course Code	Course Name
IT3311T-A	Artificial Intelligence	IT3311L-A	Artificial Intelligence Lab
IT3311T-B	Cyber Security and Privacy	IT3311L-B	Cyber Security and Privacy Lab
IT3311T-C	Internet of Things & Industry 4.0	IT3311L-C	Internet of Things & Industry 4.0 Lab
IT3311T-D	UI and UX Design	IT3311L-D	UI and UX Design Lab

B. Tech. Information Technology
Curriculum Pattern: 2025
(Level 6.0) Semester – VIII

S.N.	Course Category (Course Subcategory)	Course Code	Course title	Teaching Scheme, Classroom Contact hr/week (contact hr/semester)			Self-learning(Contact hr/semester)	Self-learning(Contact hours/semester)	Credit (Total contact of semester /30)	Examination scheme (Marks)				
										Continuous Assessment			Semester End Examination	Total Marks
				L	T	P	SL	Hr	C	TA1	MSE	TA2	ESE	
1	PCC	IT4301T	Deep Learning	3 (45)	0	0	- (45)	3 (90)	3	10	30	10	50	100
2	PCC	IT4301L	Deep Learning Laboratory	0	0	2 (16)	- (14)	2 (30)	1	10	10	10	20	50
3	HSSM (MDM-V)	HS4301T	Foundation of Management and Entrepreneurship	3 (45)	0	0	- (45)	3 (90)	3	10	30	10	50	100
4	OE	IT4302T	Open Elective-III	3 (45)	0	0	- (45)	3 (90)	3	25			75	100
5	PE	IT4303T	Program Elective-II	3 (45)	0	0	- (45)	3 (90)	3	10	30	10	50	100
6	PE	IT4303L	Program Elective- II Lab	0	0	2 (16)	- (14)	2 (30)	1	10	10	10	20	50
7	PE	IT4304T	Program Elective-III	3 (45)	0	0	- (45)	- (90)	3	10	30	10	50	100
8	PE	IT4304L	Program Elective-III Laboratory	0	0	2 (16)	- (14)	2 (30)	1	10	10	10	20	50
9	PW(AEC)	IT4305L	Engineering Innovation and Society – 3 (Capstone Project- phase 3)	0	0	6 (45)	6 (45)	6 (90)	3	10	30	10	50	100
10	PCC	IT4306L	Programming Lab III (Advanced Java Programming)	0	0	2 (16)	- (14)	2 (30)	1	10	10	10	20	50
Total				15	-	14	-	29	22	90	215	90	405	800

Program Elective II		Program Elective II Lab	
Course	Course Name	Course Code	Course Name
IT4303T-A	Natural Language Processing	IT4303L-A	Natural Language Processing Lab
IT4303T-B	Ethical Hacking	IT4303L-B	Ethical Hacking Lab
IT4303T-C	Blockchain Technology	IT4303L-C	Blockchain Technology Lab
IT4303T-D	Advanced Web Technology	IT4303L-D	Advanced Web Technology Lab

Program Elective III		Program Elective III Lab	
Course Code	Course Name	Course Code	Course Name
IT4304T-A	Generative AI	IT4304L-A	Generative AI Lab
IT4304T-B	Digital Forensics	IT4304L-B	Digital Forensics Lab
IT4304T-C	Parallel and Distributed Computing	IT4304L-C	Parallel and Distributed Computing Lab
IT4304T-D	DevOps Fundamentals	IT4304L-D	DevOps Fundamentals Lab

B. Tech. Information Technology
Curriculum Pattern: 2025
 (Level 6.0) -Semester – VIII
 Internship and Training

S.N.	Course Category (Course Subcategory)	Course Code	Course title	Teaching Scheme, Classroom Contact hr/week (contact hr/semester)			Self-learning(Contact hours/semester)	Self-learning(Contact hours/semester)	Credit (Total contact of semester /30)	Examination scheme (Marks)				
										Continuous Assessment			Semester End Examination	Total Marks
				L	T	P				TA1	MSE	TA2	ESE	
1	PW	IT4301T	Industrial Internship / Research Internship/ Start-up	-			- (540)	540 [#]	12	300			200	500
Total							24	24	12	300			200	500

1 Credit=40-45 hours of work as per AICTE Internship guidelines



Dr. N. M. Ranjan
BoS Chairman



Dr. K. P. Moholkar
Dean of Academics




Dr. A. M. Badadhe
Director