

Course Structure for B. Tech in Information Technology

FIRST YEAR

FIRST SEMESTER

A. Theory							
Sl. No	Subject Code	Subject	Contact Periods/Week				Credits
			L	T	P	Total	
1.	MAT101	Engineering Mathematics	3	1	--	4	4
2.	PHY102	Engineering Physics	3	1	--	4	4
3.	ECO103	Economics and Human Development	2	0	--	2	2
4.	ENV104	Environmental Science	2	0	--	2	2
5.	ENG105	Communication Skill in English	2	0	--	2	2
6.	CHE106	Engineering Chemistry	3	0	--	3	3
Total Theory						17	17
B. Practical							
1.	PHY182	Engineering Physics	--	--	3	3	2
2.	CHE186	Engineering Chemistry	--	--	3	3	2
3.	SOT191	Engineering Drawing	--	--	3	3	2
4.	SOT192	NCC/NSS	--	--	2	2	1
Total Practical						11	7
Total of Semester:						28	24

SECOND SEMESTER

A. Theory							
Sl. No	Subject Code	Subject	Contact Periods/Week				Credits
			L	T	P	Total	
1.	MAT201	Advanced Engineering Mathematics	3	1	--	4	4
2.	SOT202	Engineering Mechanics	3	1	--	4	4
3.	SOT203	Computer Systems and Programming	3	1	--	4	4
4.	SOT204	Electrical Technology	3	1	--	4	4
5.	PHI205	Values and Ethics	2	0	--	2	2
6.	SOT206	Basic Electronics	3	0	--	3	3
Total Theory						21	21
B. Practical							
1	SOT283	Computer Systems and Programming	--	--	3	3	2
2	SOT284	Electrical & Electronics Lab	--	--	3	3	2
3	SOT291	Workshop Technology	--	--	3	3	2
Total Practical						9	6
Total of Semester:						30	27

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SECOND YEAR

THIRD SEMESTER

A. Theory							
Sl. No.	Code	Theory	Contact Periods/Week				Credits
			L	T	P	Total	
1	IT301	Discrete Mathematics & Graph Theory	3	1	--	4	4
2	SOT302	Operations Research & Industrial Management	3	0	--	3	3
3	IT303	Numerical Methods & Programming	3	0	--	3	3
4	IT304	Data Structures	3	0	--	3	3
5	IT305	Digital Electronics	3	0	--	3	3
Total Theory						16	16
B. Practical							
1.	IT383	Numerical Methods Lab	-	--	3	3	2
2.	IT384	Data Structure Lab	-	--	3	3	2
3.	IT385	Digital Electronics Lab	-	--	3	3	2
Total Practical						9	6
Total of Semester:						25	22

FOURTH SEMESTER

A. Theory							
Sl. No.	Code	Theory	Contact Periods/Week				Credits
			L	T	P	Total	
1	IT401	Database Management Systems	3	0	--	3	3
2	IT402	System Software	3	0	--	3	3
3	IT403	Computer Organization & Architecture	3	0	--	3	3
4	IT404	Object Oriented Programming & UML	3	0	--	3	3
5	MAT405	Probability & Statistics	3	1	--	4	4
Total Theory						16	16
B. Practical							
1	IT481	DBMS Lab	-	--	3	3	2
2	IT482	System Software Lab	-	--	3	3	2
3	IT484	OOP Lab	-	--	3	3	2
Total Practical						9	6
Total of Semester:						25	22

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THIRD YEAR

FIFTH SEMESTER

A. Theory							
Sl. No.	Code	Theory	Contact Periods/Week				Credits
			L	T	P	Total	
1	IT501	Operating System	3	0	--	3	3
2	IT502	Information & Coding Theory	3	0	--	3	3
3	IT503	Embedded Systems	3	0	--	3	3
4	IT504	Multimedia	3	0	--	3	3
5	IT505	Software Engineering	3	0	--	3	3
6	IT506	IT applications in Bio-sciences	3	0	--	3	3
Total Theory						18	18
B. Practical							
1	IT583	Embedded Systems Lab	-	--	3	3	2
2	IT584	Multimedia Lab	-	--	3	3	2
3	IT585	Software Engineering Lab	-	--	3	3	2
Total Practical						9	6
Total of Semester:						27	24

SIXTH SEMESTER

A. Theory							
Sl. No.	Code	Theory	Contact Periods/Week				Credits
			L	T	P	Total	
1	IT601	Design and Analysis of Algorithms	3	0	--	3	3
2	IT602	Web Technology	3	0	--	3	3
3	IT603	Computer Graphics	3	0	--	3	3
4	IT604	Data Communication	3	0	--	3	3
5	IT605	Formal Language & Automata Theory	3	0	--	3	3
6	IT606	Gr. Discussion & Seminar Presentation on Assigned Topic	2	0	--	2	2
Total Theory						17	17
B. Practical							
1	IT691	Linux & OS Lab	-	--	3	3	2
2	IT682	Web Technology Lab	-	--	3	3	2
3	IT683	Computer Graphics Lab	-	--	3	3	2
Total Practical						9	6
Total of Semester:						26	23

Course Structure for B. Tech in Information Technology

Four - Six Weeks Industrial Training During Summer Vacation

FOURTH YEAR

SEVENTH SEMESTER

A. Theory							
Sl. No.	Code	Theory	Contact Periods/Week				Credits
			L	T	P	Total	
1	IT701	Software Quality & Project Management	3	0	--	3	3
2	IT702	Computer Networks	3	0	--	3	3
3	IT703	E-Commerce	3	0	--	3	3
4	IT704	Elective I	3	1	--	4	4
5	IT705	Elective II	3	1	--	4	4
6	IT706	Technical Writing & Documentation	0	2	--	2	2
Total Theory						19	19
B. Practical							
1	IT782	Computer Networks Lab	-	--	3	3	2
2	IT791	Term Paper	-	--	--	0	2
Total Practical						3	4
Total of Semester:						22	23

EIGHTH SEMESTER

A. Theory							
Sl. No.	Code	Theory	Contact Periods/Week				Credits
			L	T	P	Total	
1	IT801	Elective III	3	1	--	4	4
2	IT802	Elective IV	3	1	--	4	4
Total Theory						8	8
B. Practical							
1	IT891	PROJECT	-	-	--	--	12
Total Practical						0	12
Total of Semester:						8	20

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LIST OF ELECTIVES

ELECTIVE I

1. IT704A Image Processing
2. IT704B Soft Computing
3. IT704C Distributed Systems
4. IT704D Bio Informatics
5. IT704E Enterprise Resource Planning
6. IT704F Management Information Systems

ELECTIVE II

1. IT705A Distributed Database
2. IT705B Parallel Computing
3. IT705C Advanced Operating Systems
4. IT705D Computational Geometry
5. IT705E Operation Research
6. IT705F Artificial Intelligence
7. IT705G Neural Networks
8. IT705H Network Programming
9. IT705I Clustering & Grid Computing

ELECTIVE III

1. IT801A Robotic Systems
2. IT801B Computer Vision
3. IT801C Pattern Recognition
4. IT801D Digital Signal Processing
5. IT801E Fuzzy Systems
6. IT801F Data Warehousing

ELECTIVE IV

1. IT802A Mobile Computing
2. IT802B Natural Language Processing
3. IT802C GIS & Remote Sensing
4. IT802D Cryptography
5. IT802E Advanced Java Programming

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Summary of Contact Periods/Week and Credits

Semester	Contact Periods/Week	Credits
I	28	24
II	30	27
III	25	22
IV	25	22
V	27	24
VI	26	23
VII	22	23
VIII	8	20
TOTAL	191	185