

Information Technology**B.Tech Course Structure****A2018-19 Regulation****B. Tech. I Year I Semester**

Sl.No.	Course Category	Subject Code	Name of the Course	L	T	P	C	Max. Marks	
								Int.	Int.
1.	BS	7HC03	Chemistry	3	1	0	4	30	70
2.	ES	7FC01	Problem Solving using C	3	0	0	3	30	70
3.	BS	7HC07	Mathematics – I	3	1	0	4	30	70
4.	ES	7BC01	Workshop/Manufacturing practices	1	0	0	1	30	70
5.	HS	7HC01	English (Reading, Listening and Writing skills)	1	0	0	1	30	70
6.	HS	7HC20 (Mandatory)	Human Values and Professional Ethics in Higher Education	3	0	0	0	30	70
								(Grade Evaluation)	
7	ES	7FC71	Problem Solving using C Lab	0	0	3	1.5	30	70
8	BS	7HC63	Chemistry Lab	0	0	3	1.5	30	70
9	ES	7BC61	Workshop/Manufacturing practices Lab	0	0	3	1.5	30	70
10	HS	7HC61	English (Reading, Listening and Writing skills) Lab	0	0	2	1	30	70
11	PS	7F191	Technical Seminar - I	0	0	2	1	100	--
Total				11	2	13	19.5	400	700

B. Tech. I Year II Semester

Sl.No.	Course Category	Subject Code	Name of the Course	L	T	P	C	Max. Marks	
								Int.	Int.
1.	BS	7HC05	Engineering Physics	3	1	0	4	30	70
2.	PC	7EC01	Data Structures	3	0	0	3	30	70
3.	BS	7HC09	Probability and Statistics	3	1	0	4	30	70
4.	ES	7BC02	Engineering Graphics & Design	1	0	4	3	30	70
5.	HS	7HC02	English (Oral communication skills)	1	0	0	1	30	70
6.	BS	7HC65	Engineering Physics Lab	0	0	3	1.5	30	70
7.	PC	7EC71	Data Structures (C,C++) Lab	0	0	2	1	30	70
8.	HS	7HC62	English (Oral communication skills) Lab	0	0	2	1	30	70
9.	PS	7F292	Technical Seminar - II	0	0	2	1	100	--
			Total	11	2	13	19.5	340	560

II YEAR I SEMESTER COURSE STRUCTURE

Sl. No	Course Category		Subject	L	T	P/D	C	Max. Marks	
								Int.	Int.
1.	ES	7AC41	Basic Electrical Engineering	3	0	0	3	30	70
2.	ES	7C354	Analog Electronic Circuits	2	1	0	3	30	70
3.	PC	7EC02	Object Oriented Programming through Java	2	1	0	3	30	70
4.	HS	7ZC01	Management Science and Financial Accounting	2	0	0	2	30	70
5.	PC	7F302	Discrete Mathematics	2	0	0	2	30	70
6.	PC	7FC03	Python Programming	3	0	0	3	30	70
7.	PC	7EC72	Object oriented programming through Java Lab	0	0	3	1.5	30	70
8.	ES	7AC91	Basic Electrical Engineering and Analog Electronics Circuits Lab	0	0	3	1.5	30	70
9.	PC	7F372	IT Workshop and Python Programming Lab	0	0	3	1.5	30	70
10.	PS	7F393	Technical Seminar - III	0	0	2	1	100	--
			Total :	14	2	11	21.5	370	630

II YEAR II SEMESTER COURSE STRUCTURE

Sl. No	Course Category		Subject	L	T	P/D	C	Max. Marks	
								Int.	Int.
1.	BS	7HC16	Mathematics –II	2	0	0	2	30	70
2.	ES	7CC55	Digital Electronics	3	0	0	3	30	70
3.	PC	7D408	Computer Organization	2	0	0	2	30	70
4.	PC	7EC03	Database Management Systems	2	1	0	3	30	70
5.	PC	7F404	Software Engineering and OOAD	3	0	0	3	30	70
6.	ES	7CC57	Data Communications	3	0	0	3	30	70
7.	HS	7HC21 (Mandatory)	Environmental Science and Ecology	3	0	0	0	30	70
								(Grade Evaluation)	
8.	PC	7EC73	Database Management Systems Lab	0	0	3	1.5	30	70
9.	PC	7F473	Computer Aided Software Engineering (CASE) Tools Lab	0	0	4/2*	1	30	70
10.	PC	7D475	Computer Organization Lab	0	0	4/2*	1	30	70
11.	PS	7F494	Technical Seminar – IV	0	0	2	1	100	--
12.	PC	7F495	Comprehensive Viva –Voce I	0	0	0	1	30	70
13.	PS	7FC81	Summer Industry Internship-I (Evaluation will be done along with 3-1 subjects)						
			Total :	18	1	9	21.5	430	770

* Bi weekly lab

B.Tech (IT) Course Structure
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III YEAR I SEMESTER COURSE STRUCTURE

Sl. No	Course Category	Dept Course	Course	L	T	P/D	C	Max. Marks	
								Int.	Ext.
1.	OE		Open Elective-I	3	0	0	3	30	70
2.	PE		Professional Elective - I	3	0	0	3	30	70
3.	PC	7F505	Design and Analysis of Algorithms	2	1	0	3	30	70
4.	PC	7E504	Data Warehousing and Data Mining	3	1	0	4	30	70
5.	PC	7EC05	Computer Networks	3	0	0	3	30	70
6.	HS	7HC63	Soft Skills	0	0	2	1	30	70
7.	BS	7H518	Quantitative Aptitude	1	1	-	2	30	70
8.	PC	7E574	Data Warehousing and Data Mining Lab	0	0	4	2	30	70
9.	PC	7EC75	Computer Networks Lab	0	0	4/2*	1	30	70
10.	PC	7F574	Design and Analysis of Algorithms Lab	0		4/2*	1	30	70
11.	PS	7F596	Technical Seminar – V	0	0	2	1	100	--
12.	PS	7F581	Summer Industry Internship-I	0	0	0	1	30	70
			Total :	15	3	12	25	430	770

* Bi weekly lab

III YEAR II SEMESTER COURSE STRUCTURE

Sl. No	Course Category	Dept Course	Course	L	T	P/D	C	Max. Marks	
								Int.	Ext.
1.	OE		Open Elective - II	3	0	0	3	30	70
2.	PE		Professional Elective – II	3	0	0	3	30	70
3.	PC	7F606	Automata Theory and Compiler Design	2	1	0	3	30	70
4.	PC	7E606	Operating Systems	2	1	0	3	30	70
5.	PC	7E607	Web Technologies	2	1	0	3	30	70
6.	BS	7H619	Logical Reasoning	1	1	-	2	30	70
7.	PC	7F675	Compiler Design Lab	0	0	4/2*	1	30	70
8.	PC	7E676	Operating System Lab	0	0	4/2*	1	30	70
9.	PC	7EC77	Web Technologies Lab	0	0	4	2	30	70
10.	PS	7F682	Group Project	0	0	3	2	30	70
11.	PC	7F697	Comprehensive Viva -Voce II	0	0	0	1	30	70
12.	PS		Summer Industry Internship-II (Evaluation will be done along with 4-1 courses)						
			Total :	14	4	11	25	360	840

* Bi weekly lab

B.Tech (IT) Course Structure
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IV YEAR I SEMESTER COURSE STRUCTURE

Sl. No	Course Category	Dept Course	Course	L	T	P/D	C	Max.	
								Int.	Ext.
1.	PE		Professional Elective – III	3	0	0	3	30	70
2.	PE		Professional Elective-IV	3	0	0	3	30	70
3.	PC	7F707	AndriodApplication Development	2	1	0	3	30	70
4.	PC	7E709	Information Security	2	1	0	3	30	70
5.	PC	7F708	Linux Programming	3	0	0	3	30	70
6.	PC	7F776	AndriodApplication Development Lab	0	0	4	2	30	70
7.	PC	7F777	Linux Programming Lab	0	0	3	1.5	30	70
8.	PC	7E779	Information Security Lab	0	0	3	1.5	30	70
9.	PS	7F783	Project - I	0	0	4	2	30	70
10.	PS	7F784	Evaluation of Summer Industry Internship-II	-	-	-	1	30	70
			Total :	13	2	14	23	300	700

IV YEAR II SEMESTER COURSE STRUCTURE

Sl. No	Course Category	Dept Course	Course	L	T	P/D	C	Max.	
								Int.	Ext.
1.	OE		Open Elective- III	3	0	0	3	30	70
2.	PE		Professional Elective – V	3	0	0	3	30	70
3.	PS	7F885	Project – II	-	-	10	5	30	70
			Total :	6	0	10	11	90	210

Note: All End Examinations (Theory and Practical) are of **Three** hours duration.

T – Tutorial

L- Theory

P/D – Practical/Drawing

C- Credits

Int. - Internal Exam

Ext. - External Exam

Course code Definitions

BS- Basic Science Courses

ES- Engineering Science Courses

HS- Humanities and Social Sciences including Management courses

PC- IT Professional core courses

PE - IT Professional Elective courses

OE- IT Open Elective courses

PS- Summer Industry Internship, Projects, Comprehensive Viva Voce, technical Seminars

SNIST (Auto) B.Tech.(IT) Reg 2018-19
Course Structure – Professional Electives

Professional Elective Streams	Code	Professional Elective – I (3-1)	Code	Professional Elective – II (3-1)	Code	Professional Elective – III (3-2)	Code	Professional Elective – IV (3-2)	Code	Professional Elective – V (4-1)
Network Security	7EC09	Semantic Web & Social Networks (IT)	7FC10	Cyber Security and Cyber Laws Semantic (IT)	7FC11	E-Commerce (IT)	7FC12	Information Security, Management and Standards (IT)	7EC10	Mobile Adhoc and Sensor Networks (CSE)
Software Engineering	7EC11	Software Architecture and Design Patterns (CSE)	7EC12	Software Requirements and Estimation (CSE)	7EC13	Software Project Management (CSE)	7EC14	Agile Software Development (CSE)	7EC15	Soft Computing (CSE)
Data Science	7EC16	Introduction to Data Science (CSE)	7EC17	Machine Learning (CSE)	7FC13	Big Data Analytics (IT)	7EC18	Artificial Intelligence and Deep Learning (CSE)	7EC14	Cloud Computing (IT)
Advanced Technologies	7EC19	Computer Graphics (CSE)	7EC20	Image Processing (CSE)	7FC15	Block Chain Technologies (IT)	7FC16	Augmented and Virtual Reality (IT)	7EC55	Internet of Things (ECM)
Advanced Courses	7FC18	Information Retrieval systems (IT)	7FC19	Business Intelligence (IT)	7EC23	Advanced Operating Systems (CSE)	7FC20	Mobile Computing (IT)	7FC21	Video Processing and Video Analytics (IT)
				7EC24	Distributed Systems					

Course Structure –Open Electives

Open Elective Streams	Codes	Open Elective – I (3-1)		Open Elective – II (3-2)		Open Elective – III (4-1)
Entrepreneurship Stream	7ZC22	Basics of Entrepreneurship	7ZC30	Advanced Entrepreneurship	7ZC24	Innovation and Design Thinking
Social Sciences Stream	7ZC25	Indian Polity and Economy	7ZC26	Ecology and Disaster Management	7ZC27	Indian History, Geography and Culture
Finance Stream	7ZC05	Banking Operations, Insurance and Risk Management	7ZC19	Entrepreneurship Project Management and Structured Finance	7ZC15	Financial Institutions, Markets and Services
Mechanical	7BC51	Smart materials	7BC53	Principles of Operations Research	7BC55	Principals of Automation and Robotics
Electrical	7AC46	Control System Engineering	7AC44	Fundamentals of Measurements and Instrumentation	7AC45	Fundamentals of Renewable Energy Sources
Electronics	7CC33	Fundamentals of Signal Processing	7CC34	Communication Theory	7CC35	Introduction To VLSI Design And Embedded Systems