

**DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING
(DATA SCIENCE)**

B.Tech Course Structure (R23 Regulations)

I B.Tech (I Sem)

Branch/Specialization:CSE (DS)

S.No.	Course Code	Name of the Course	Contact Hours per Week			Credits
			L	T	P	
1	HS101	Matrices and Calculus	3	1	0	4
2	HS105	Engineering Chemistry	3	1	0	4
3	ES101	Basic Electrical Engineering	2	0	0	2
4	ES103	Electronic Devices and Circuits	2	0	0	2
4	ES106	Programming for Problem Solving*	2	0	4	4
5	HS106	Engineering Chemistry Lab	0	0	2	1
6	ES105	Electrical and Electronics Engg. Lab	0	0	2	1
7	MC102	Morals and Ethics	1	0	0	0
Total			12	2	8	18

L: Lecture Hour

T: Tutorial Hour

P: Lab/Practice Hour

***Integrated Course (Theory & Lab)**

I B.Tech (II Sem)

Branch/Specialization:CSE (DS)

S.No.	Course Code	Name of the Course	Contact Hours per Week			Credits
			L	T	P	
1	HS102	Multivariable and Vector Calculus	3	1	0	4
2	HS103	Applied Physics	3	1	0	4
3	HS107	English for Skill Enhancement	2	0	0	2
4	ES107	Python Programming*	2	0	2	3
5	ES108	Computer Aided Engineering Graphics	1	0	4	3
6	HS104	Applied Physics Lab	0	0	3	1.5
7	HS108	English Language and Communication Skills Lab	0	0	2	1
8	ES113	Engineering Workshop Practice	0	0	3	1.5
9	ES115	IT Workshop	0	0	2	1
10	MC101	Environmental Science	1	0	0	0
Total			12	2	16	21

L: Lecture Hour

T: Tutorial Hour

P: Lab/Practice Hour

***Integrated Course (Theory & Lab)**

II B.Tech (I Sem)**Branch/Specialization:CSE (DS)**

S.No.	Course Code	Name of the Course	Contact Hours per Week			Credits
			L	T	P	
1	HS201	Probability and Statistics	3	1	0	4
2	EC216	Digital Electronics	3	0	0	3
3	CS206	Computer Organization and Architecture	3	0	0	3
4	CS210	Database Management Systems	3	0	0	3
5	CS214	Data Structures with Python	3	0	0	3
6	CS216	Data Science	3	0	0	3
7	CS211	Database Management Systems Lab	0	0	2	1
8	CS215	Data structures with Python Lab	0	0	2	1
9	MC201	Constitution of India	1	0	0	0
Total			19	1	4	21

L: Lecture Hour**T: Tutorial Hour****P: Lab/Practice Hour****II B.Tech (II Sem)****Branch/Specialization:CSE (DS)**

S.No.	Course Code	Name of the Course	Contact Hours per Week			Credits
			L	T	P	
1	HS207	Business Economics & Financial Analysis	3	0	0	3
2	CS203	Object Oriented Programming through Java	3	0	0	3
3	CS205	Discrete Mathematics	3	0	0	3
4	CS208	Operating Systems	3	0	0	3
5	CS317	Formal Language and Automata Theory	3	0	0	3
6	CS204	Object Oriented Programming using Java Lab	0	0	2	1
7	CS209	Operating System Lab	0	0	2	1
8	CS222	Real Time / Field Based Research Project	0	0	4	2
9	HS206	Verbal Communications and Soft Skills Lab	0	0	2	1
10	MC202	Gender Sensitization Lab	0	0	2	0
Total			15	0	12	20

L: Lecture Hour**T: Tutorial Hour****P: Lab/Practice Hour**