

2022 BATCH CURRICULUM

Semester 1				
Course code	Course name	Category	Credits	Semester Total
CS 103	Computing and Science	Department Core	6	
MA 109	Calculus I	Basic Sciences and Mathematics	4	
MA 111	Calculus II	Basic Sciences and Mathematics	4	
CH 105	Organic & Inorganic Chemistry	Basic Sciences and Mathematics	4	
CH 107	Physical Chemistry	Basic Sciences and Mathematics	4	
PH 117	Physics lab	Basic Sciences and Mathematics	3	
CS 101	Computer programming	Engineering Sciences and skills	6	
HSS/IDC/ENT	Introduction to HASMED	HASMED Core	8	
NOCS 01	NCC/NSS/NSO	Non - Credited compulsory Courses		
GC 101	Gender sensitization course	Non - Credited compulsory Courses		
TA 101	TA Course	Non - Credited compulsory Courses		
				39
Semester 2				
Course code	Course name	Category	Credits	Semester Total
CS 104	Software Systems Lab	Department Core	6	
MA 106	Linear Algebra	Basic Sciences and Mathematics	4	
MA 108	Differential Equations	Basic Sciences and Mathematics	4	
PH 111	Introduction to classical physics	Basic Sciences and Mathematics	4	
PH 112	Introduction to quantum physics	Basic Sciences and Mathematics	4	
BB101	Biology	Basic Sciences and Mathematics	6	
MS 101	Makerspace	Engineering Sciences and skills	8	
CH 117	Chemistry lab	Basic Sciences and Mathematics	3	
NOCS 02	NCC/NSS/NSO	Non - Credited compulsory Courses		
				39
Semester 3				
Course code	Course name	Category	Credits	Semester Total

CS 215	Data Analysis and Interpretation	Department Core	6	
EC 101	Economics	HASMED Core	6	
CS 207	Discrete structures	Department Core	6	
CS 213	Data Structures and Algorithms	Department Core	6	
CS 293	Data Structures Lab	Department Lab and SLP/PT/Works Visit	3	
CS 230	Digital Logic Design and Computer Architecture	Department Core	6	
CS 231	Digital Logic Design and Computer Architecture La	Department Lab and SLP/PT/Works Visit	3	
				36
Semester 4				
Course code	Course name	Category	Credits	
DE 250	Design Thinking	HASMED Core	6	
CS 218	Design and Analysis of Algorithms	Department Core	6	
CS 208	Logic and theory of computation	Department Core	6	
CS 219	Operating Systems	Department Core	6	
CS 236	Operating Systems Lab	Department Lab and SLP/PT/Works Visit	3	
CS 217	Artificial Intelligence and Machine Learning	Department Core	6	
CS 240	Artificial Intelligence and Machine Learning Lab	Department Lab and SLP/PT/Works Visit	3	
				36
Semester 5				
Course code	Course name	Category	Credits	Semester Total
CS 348	Computer Networks	Department Core	6	
CS 378	Computer Networks Lab	Department Lab and SLP/PT/Works Visit	3	
CS 339	Abstractions and Paradigms for Programming	Department Core	6	
CS 355	Programming Paradigms Lab	Department Lab and SLP/PT/Works Visit	3	
	STEM elective 1	STEM Elective	6	
	HASMED elective 1	HASMED Elective	6	

CS ---	Department elective 1	Department Electives	6	
				36
Semester 6				
Course code	Course name	Category	Credits	Semester Total
CS 320	Implementation of Programming Languages	Department Core	6	
CS 306	Implementation of Programming Languages Lab	Department Lab and SLP/PT/Works Visit	3	
CS 317	Database and Information Systems	Department Core	6	
CS 349	Database and Information Systems Lab	Department Lab and SLP/PT/Works Visit	3	
	HASMED elective 2	HASMED Elective	6	
CS ---	Department elective 2	Department Electives	6	
ES 250 & HS 250		HS 200 and ES 200	6	
	Honors			6
				36
Semester 7				
Course code	Course name	Category	Credits	Semester Total
	BTech Project	BTP/Equivalent Elective courses	6	
	STEM elective 2	STEM Elective	6	
	Flexible elective 1	Flexible Elective	6	
	Flexible elective 2	Flexible Elective	6	
	Honors			6
	Honors			6
				24
Semester 8				

Course code	Course name	Category	Credits	Semester Total
	BTech Project	BTP/Equivalent Elective courses	6	
	BTech project	BTP/Equivalent Elective courses	6	
	Flexible elective 3	Flexible Elective	6	
	Flexible elective 4	Flexible Elective	6	
	Flexible elective 5	Flexible Elective	6	
	Honors			6
				30
Semester 9	B.Tech. Credits = 0	Dual Degree Credits = 54	Total Credits = 54	
Course Code	Course Name	Category	Credits	
		PG Electives	6	
		PG Electives	6	
		Dual Degree Project	36	
		PG Electives	6	
Semester 10	B.Tech. Credits = 0	Dual Degree Credits = 42	Total Credits = 42	
Course Code	Course Name	Category	Credits	
		PG Electives	6	
		Dual Degree Project	36	

Category	SUM of Credits
Basic Sciences and Mathematics	44
BTP/Equivalent Elective courses	18
Category	0
Department Core	84
Department Lab and SLP/PT/Work	24
Engineering Sciences and skills	14
Flexible Elective	30
HASMED Core	20
HS 200 and ES 200	6
Non - Credited compulsory Courses	
(blank)	
STEM Elective	12
HASMED Elective	12
Department Electives	12
Grand Total	276
Degree Requirement	
Category of Courses	SUM of Credits
Dual Degree Project	72
Honors	24
PG Electives	24
Grand Total	120
Additional Credits for Dual	credits are
Total Dual Degree Credits	132