

BS-MS Dual Degree programme in Computational and Data Sciences
Courses of Study applicable from Academic Session 2025-26

Semester 1

Sl. No.	Course Code	Course Name	Type	Category	Credits			Course Credit
					L	T	P	
1	CH1101	Elements of Chemistry	Theory	Core	2	1	0	3
2	CS1101	Introduction to Computer Programming	Laboratory	Core	1	0	3	4
3	ES1101	Introduction to Earth Science	Theory	Core	2	1	1	4
4**	HU1101	Communicative English	Theory	Elective	2	0	0	2
	HU1103	Communicative English II	Theory	Elective	2	0	0	
5	LS1101	Introduction to Biology I	Theory	Core	2	1	0	3
6	MA1101	Mathematics I	Theory	Core	3	1	0	4
7	PH1101	Mechanics I	Theory	Core	2	1	0	3
8	PH1102	Physics Laboratory I	Laboratory	Core	0	0	3	3
Total Credits								26

****One of the two humanities courses HU1101 or HU1103 will be allotted after a screening test.**

Semester 2

Sl. No.	Course Code	Course Name	Type	Category	Credits			Course Credit
					L	T	P	
1	CH1201	Elements of Chemistry-II	Theory	Core	2	1	0	3
2	CH1202	General Chemistry Laboratory	Laboratory	Core	0	0	3	3
3	ES1201	Earth System Processes	Theory	Core	2	1	1	4
4	LS1201	Introduction to Biology II	Theory	Core	2	1	0	3
5	LS1202	Biology Laboratory I	Laboratory	Core	0	0	3	3
6	MA1201	Mathematics II	Theory	Core	3	1	0	4
7	PH1201	Electricity and Magnetism	Theory	Core	2	1	0	3
Total Credits								23

Semester 3

Sl. No.	Course Code	Course Name	Type	Category	Credits			Course Credit
					L	T	P	
1	CS2101	Computer Organizations and Architecture	Theory	Core	2	1	1	4
2	CS2102	Data Structures and Algorithms	Theory	Core	2	1	1	4
3	CS2103	Data Structures and Algorithms Laboratory	Laboratory	Core	1	0	3	4
4	MA2102	Linear Algebra I	Theory	Core	3	0	0	3
5	MA2104	Probability and Statistics I	Theory	Core	3	0	0	3
6		Open Elective (<i>Minor course from Natural Sciences</i>)		Elective				3
7		Open Elective (<i>Minor course from Natural Sciences</i>)		Elective				3
Total Credits								24

Semester 4

Sl. No.	Course Code	Course Name	Type	Category	Credits			Course Credit
					L	T	P	
1	CS22XX	Operating Systems	Theory	Core	3	1	0	4
2	CS22XX	Database Management Systems	Theory	Core	3	1	0	4
3	CS22XX	Discrete Mathematics	Theory	Core	3	1	0	4
4	CS22XX	Foundation of Machine Learning	Theory	Core	3	1	0	4
5	CS22XX	Machine Learning Laboratory	Laboratory	Core	0	1	3	4
6	CS22XX	Database Management Systems Laboratory	Laboratory	Core	0	1	3	4
Total Credits								24

