

BIRLA INSTUTURE OF TECHNOLOGY-MESRA, RANCHI COURSE STRUCTURE FOR MASTER OF SCIENCE (AI & Data Science)

(w.e.f. Academic Session 2025-26) (Proposed)

Semester/ Session of Study (Recomm ended)	Course Level	Course Code	Courses	Mode of delivery and credits L-Lecture; T-Tutorial; P-Practical			Total Credits C
				L	Т	P	С
First Monsoon	Fourth	XX25401	Data Structures	3	0	0	3
		XX25403	Database Design Concepts	3	0	0	3
		XX25405	Software Engineering	3	0	0	3
		XX25407	Modern Operating Systems	3	0	0	3
		XXXXX	Environmental Science	2	0	0	2
		HS24131	Communication Skills-I	0	0	3	1.5
		XX25402	Data Structures Lab	0	0	3	1.5
		XX25404	Database Design Concepts Lab	0	0	3	1.5
		XX25406	Software Engineering Lab	0	0	3	1.5
							20

Semester/ Session of Study (Recomm ended)	Course Level	Course Code	Courses	Mode of delivery and credits L-Lecture; T-Tutorial; P-Practical L T P			Total Credits C
				L	1	1	C
Second Spring	Fourth	XX25411	Python Programming	3	0	0	3
		XX25413	Analysis of Algorithms	3	1	0	4
		XX25415	Data Communication and Networking	3	0	0	3
		XX25417	Foundations of Data Science & AI	3	1	0	4
		XX25412	Python Programming Lab	0	0	3	1.5
		XX25414	Analysis of Algorithms Lab	0	0	3	1.5
		XX25416	Data Communication and Networking Lab	0	0	3	1.5
		HS24132	Communication Skills-II	0	0	3	1.5
							20

Semester/ Session of Study (Recomm ended)	Course Level	Course Code	Courses	Mode of delivery and credits L-Lecture; T-Tutorial; P-Practical			Total Credit s C
					1	1	
Third Monsoon	Fifth	XX25501	Deep Learning	3	1	0	4
		XX25503	Data Mining and Machine Learning	3	1	0	4
		XX25505	Big Data Analytics and Data Visualisation	3	0	0	3
		XX25507	Natural Language Processing	3	0	0	3
		XX25502	Data Mining and Machine Learning Lab	0	0	3	1.5
		XX25506	Big Data Analytics & Visualization Lab	0	0	3	1.5
		XX25508	Mini Project & Seminar				3
							20

Semester/ Session of Study Cours Level		Course	Courses	Mode of delivery and credits L-Lecture; T-Tutorial; P-Practical			Total Credits C
(Recomm ended)	Levei	Code		L	T	P	C
Fourth Spring	Fifth	XX25510	Project/ Internship	0	0	0	20
							20