



**BIRLA INSTITUTE 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	T	P	C
First Monsoon	Fourth	XXXXX	Data Structures	3	0	0	3
		XXXXX	Database Design Concepts	3	0	0	3
		XXXXX	Software Engineering	3	0	0	3
		XXXXX	Modern Operating Systems	3	0	0	3
		XXXXX	Environmental Science	2	0	0	2
		XXXXX	Communication Skills-I	0	0	3	1.5
		XXXXX	Data Structures Lab	0	0	3	1.5
		XXXXX	Database Design Concepts Lab	0	0	3	1.5
		XXXXX	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			Total Credits C
				L	T	P	C
Second Spring	Fourth	XXXXX	Python Programming	3	0	0	3
		XXXXX	Analysis of Algorithms	3	1	0	4
		XXXXX	Data Communication and Networking	3	0	0	3
		XXXXX	Foundations of Data Science & AI	3	1	0	4
		XXXXX	Analysis of Algorithms Lab	0	0	3	1.5
		XXXXX	Communication Skills-II	0	0	3	1.5
		XXXXX	Python Programming Lab	0	0	3	1.5
		XXXXX	Data Communication and Networking Lab	0	0	3	1.5
20							

Semester/ Session of Study (Recommended)	Course Level	Course Code	Courses	Mode of delivery and credits			Total Credits
				L-Lecture;	T-Tutorial;	P-Practical	C
				L	T	P	C
Third Monsoon	Fifth	XXXXX	Deep Learning	3	1	0	4
		XXXXX	Data Mining and Machine Learning	3	1	0	4
		XXXXX	Big Data Analytics and Data Visualisation	3	0	0	3
		XXXXX	Natural Language Processing	3	0	0	3
		XXXXX	Data Mining and Machine Learning Lab	0	0	3	1.5
		XXXXX	Big Data Analytics & Visualization Lab	0	0	3	1.5
		XXXXX	Mini Project & Seminar				3
							20

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