

M. Tech DATA SCIENCE (SFS)

Syllabus



Department of Computer Engineering

Jamia Millia Islamia

M. TECH. DATA SCIENCE (SFS) COURSE STRUCTURE

Codes for nature of courses

L : Lecture courses
P : Laboratory Based courses
S : Seminar/ Independent Study

Category of Courses

CORE : Departmental courses

Weight age for Course Evaluation

L : Lecture **T :** Tutorial **P :** Practical **CCA :** Continuous Class Assessment **MTE**
:Mid Term Exam

M. TECH. DATA SCIENCE 1st YEAR (Effective from July 2024)

S.No.	Course No.	Course Name	Type of Course	Credit	Periods/ week			Examination Scheme (Distribution of Marks)					
								Mid Semester Evaluation			End Semester Evaluation	Total Marks	
					L	T	P	CCA	MT E-1	MT E-2			
THEORY													
First Semester													
01	MDS-101	Mathematics for Data Science		4	3	1	-	10	15	15	60	100	
02	MDS-102	Distributed and Cloud Computing		4	3	1	-	10	15	15	60	100	
03	MDS-103	Programming for Data Science		4	3	1	-	10	15	15	60	100	
04	MDS-104	Computational Thinking		4	3	1	-	10	10	10	45	100	
05	MDS-105	Data Mining & Data Analysis		4	3	1	-	10	10	10	45	100	
PRACTICAL (LAB.)													
06	MDS-191	Python for Data Mining		2	-	-	4	10	10	10	20	50	
07	MDS-192	Computational Lab		2	-	-	4	10	10	10	20	50	
Total				24								Total	600
THEORY													
Second Semester													
01	MDS-201	Machine Learning		4	3	1	-	10	15	15	60	100	
02	MDS-202	Statics for Business Analytics		4	3	1	-	10	15	15	60	100	
03	MDS-203	IOT		4	3	1	-	10	15	15	60	100	
04	MDS-204	Elective 2- Multimedia System		4	3	1	-	10	15	15	60	100	
05	MDS-205	Big Data System and Analytics		4	3	1	-	10	15	15	60	100	
PRACTICAL (LAB.)													
06	MDS-291	IOT lab		2	-	-	4	10	10	10	20	50	
07	MDS-292	Machine Learning Lab		2	-	-	4	10	10	10	20	50	
08	MDS-293	Seminar		2	-	-	4	10	10	10	20	50	
Total				26								Total	650

M. TECH. DATA SCIENCE COURSE STRUCTURE

M. TECH. DATA SCIENCE –2nd YEAR (Effective from July 2024)

Third Semester												
S.No	Course No.	Course Name	Type of Course	Credit	Periods / week			Examination Scheme (Distribution of Marks)				
								Mid Semester Evaluation			End Semester Evaluation	Total Marks
					L	T	P	CCA	MT E-1	M TE -2		
THEORY					Third Semester							
01	MDS-301	Natural Language Processing		4	3	1	-	10	15	15	60	100
02	MDS-302	Deep Learning		4	3	1	-	10	15	15	60	100
PRACTICAL (LAB.)												
04	MDS-391	Minor Project		6	-	-	10	30	30	30	60	150
Total				14								350
THEORY					Fourth Semester							
01	MDS-491	Dissertation		12	-	-	20	180		120	300	
Total				12				Total				300

Total Credits: 76

Total Marks: 1900