

MAULANA ABUL KALAM AZAD UNIVERSITY OF TECHNOLOGY, WB
Syllabus of M. Tech. in Information Technology with Specialization in Data Science
(Effective for 2019-2020 Admission session)

Curriculum Structure

M. Tech Sem-I.

Code	Course Title	Hours per week			Credits
		L	T	P	
	Program Core I- Mathematical foundations of Computer Science	3	0	0	3
	Program Core II- Advanced Data Structures	3	0	0	3
	Program Elective I- Data Science/ Distributed Systems/ Data Preparation and Analysis	3	0	0	3
	Program Elective II- Recommender System/ Machine Learning/ Data Storage Technologies and Networks	3	0	0	3
	Research Methodology and IPR	2	0	0	2
	Audit Course	2	0	0	0
	Laboratory 1 (Advanced Data Structures)	0	0	4	2
	Laboratory 2 (Based on Electives)	0	0	4	2
Total Credits: 18					

M.Tech Sem- II

Code	Course Title	Hours per week			Credits
		L	T	P	
	Program Core III – Advance Algorithms	3	0	0	3
	Program Core IV – Soft Computing	3	0	0	3
	Program Elective III – Data Visualization/ Big Data Analytics/ Data Warehouse and Data Mining	3	0	0	3
	Program Elective IV – Data Security and Access Control/ Web Analytics and Development/ Knowledge Discovery	3	0	0	3
	Audit Course	2	0	0	0
	Laboratory 3 (Based on cores)	0	0	4	2
	Laboratory 4 (Based on Electives)	0	0	4	2
	Mini Project with Seminar	2	0	0	2
Total Credits: 18					

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***Students be encouraged to go to Industrial Training/Internship for at least 2-3 months during semester break.**

M.Tech III Sem*

Code	Course Title	Hours per week			Credits
		L	T	P	
	Program Elective V – GPU Computing/ Cloud Computing/ Distributed Databases	3	0	0	03
	Open Elective 1. Business Analytics 2. Industrial Safety 3. Operations Research 4. Cost Management of Engineering Projects 5. Composite Materials 6. Waste to Energy	3	0	0	03
	Dissertation-I /Industrial Project	0	0	20	10
Total Credits: 16					

***Students going for Industrial Project/Thesis will complete these courses through MOOCs.**

M. Tech Sem-IV

	Course Title	Hours per week			Credits
		L	T	P	
	Dissertation II	0	0	32	16
Total Credits: 16					

The program offers several elective courses, focusing on different aspects of Data Science. A student can choose to do any course from given program elective set.