

**B.Sc Data Science and Artificial Intelligence
CURRICULUM FRAMEWORK 2023 – 2026 Batch**

SEM	PART	COURSE COMPONENT	COURSE CODE	TITLE OF THE PAPER	CREDITS	CIA	ESE
I YEAR I SEMESTER	I	Foundation Course	25ULTFC1S01/ 25ULHFC1S01/ 25ULSFC1S01/ 25ULFFC1S01	Tamil-I/ Hindi -I/ Sanskrit-I/ French-I	3	40	60
	II	Foundation Course	25UGEFC1S01	General English-I	3	40	60
	III	Core Theory-I	25UGDACT1001	Python Programming for Data Science	5	40	60
		Core Practical-I	25UGDACP1001	Python Programming for Data Science Lab	5	40	60
		Generic Specific Elective I (Theory)	25UDAGT1001	Mathematics-I	3	40	60
	IV	Skill Enhancement Course(SEC) - 1		Analytical Reasoning and Problem Solving - I	2	40	60
		Skill Enhancement (Foundation Course)		Effective Communication for Professionals	2		
I YEAR II SEMESTER	I	Foundation Course		Tamil-II/ Hindi -II/ Sanskrit-II/ French-II	3	40	60
	II	Foundation Course		General English-II	3	40	60
	III	Core Theory-II		Programming in JAVA	5	40	60
		Core Practical-II		Programming in JAVA Lab	5	40	60
		Generic Specific Elective II (Theory)		Mathematics-II	3	40	60
	IV	Skill Enhancement Courses(SEC)-2		Personal Development and Soft Skills	2	40	60
		NMC1 Skill Enhancement Courses(SEC)-3		Analytical Reasoning and Problem Solving - II	2	40	60

II YEAR III SEMESTER	I	Foundation Course		Tamil-III/ Hindi -III/ Sanskrit-III/ French-III	3	40	60
	II	Foundation Course		General English-III	3	40	60
	III	Core Theory-III		Data Structures and Algorithms	5	40	60
		Core Practical-III		Data Structures and Algorithms Lab	5	40	60
		Generic Specific Elective III (Theory)		Statistics - I	3	40	60
	IV	Skill Enhancement Courses(SEC)-4		Fundamentals of Recruitment and Talent Acquisition	1	40	60
		NMC2 Skill Enhancement Courses(SEC)-5		NMC (Naan Mudhalvan Course)	2	40	60
		EVS		EVS	-	40	60
II YEAR IV SEMESTER	I	Foundation Course		Tamil-IV/ Hindi -IV/ Sanskrit-IV/ French-IV	3	40	60
	II	Foundation Course		General English-IV	3	40	60
	III	Core Theory-IV		Machine Learning	5	40	60
		Core Practical –IV		Machine Learning Lab	5	40	60
		Generic Specific Elective IV (Theory)		Statistics - II	3	40	60
	IV	NMC3 Skill Enhancement Courses(SEC)-6		NMC (Naan Mudhalvan Course)/ Effective Communication for Professionals - II	2		100
		EVS		EVS	2	40	60
				Value Education	2	40	60

III YEAR V SEMESTER	III	Core Theory-V		Big Data Analytics	4	40	60
		Core Theory-VI		Geospatial and Cloud Computing for Data Science	4	40	60
		Core Practical - V		Geospatial and Cloud Computing for Data Science Lab	4	40	60
		Core Theory /Project with Viva Voce		Project with Viva Voce	4	40	60
		Generic /Discipline Specific Elective V (Theory)		Natural Language Processing / Industrial Applications of AI	3	40	60
		Generic/ Discipline Specific Elective VI (Theory)		Revolutionary Methods in Data Science / Principles of Cyber Security	3	40	60
	IV	NMC4 Skill Enhancement Courses(SEC)-7		NMC (Naan Mudhalvan Course)	2	40	60
				Internship / Industrial Training	2	40	60
III YEAR VI SEMESTER	III	Core Theory- VII		Deep Learning	4	40	60
		Core Theory- VIII		Computer Vision	4	40	60
		Core Theory- IX		Data Visualization	4	40	60
		Generic / Discipline Specific Elective VII (Theory)		Time Series Analysis / Principles of Data Ethics and Privacy	3	40	60
		Generic / Discipline Specific Elective VIII (Theory)		Data Analytics for Strategic Decision Making / Game User Interface Design	3	40	60
	IV	NMC5		NMC (Naan Mudhalvan Course)	2		
	V			Extension Activity	1	-	-
TOTAL					140		

Core Electives

<u>List of Courses Offered in V Semester</u>	<u>List of Courses Offered in VI semester</u>
Natural Language Processing	Time Series Analysis
Industrial Applications of AI	Principles of Data Ethics and Privacy
Revolutionary Methods in Data Science	Data Analytics for Strategic Decision Making
Principles of Cyber Security	Game User Interface Design

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