

**Structure for 5 Year Integrated Masters Programme in Data Science & Artificial Intelligence**

SEMESTER	MAJOR					TOTAL	MINOR	AEC	MDC	VAC1	VAC2	SEC	G.TOTAL CREDITS
	CT1	CT2	CT3	CT4	CT5			AEC, MDC, VAC1 & VAC2 to be opted from centrally organised basket of courses for FYIMP under NEP 2020					
I	Problem Solving with C 3+1 Credits IMDAMJPC0124	-	-	-	-	4	Internet of Things 4 Credits IMDAMNIT0124	One 3-Credit AEC Course IMDAAEXXXX23	One 3-Credit MDC Course IMDAMDXX0023	One 2-Credit VAC Course IMDAVAXXX23	One 2-Credit VAC Course IMDAVAXXX23	Principles of Management 2 Credits IMDASEPM0124	20
II	Python Programming 3+1 Credits IMDAMJPP0224	-	-	-	-	4	Programming with R 4 Credits IMDAMNPR0224	One 3-Credit AEC Course IMDAAEXXXX23	One 3-Credit MDC Course IMDAMDXX0023	One 2-Credit VAC Course IMDAVAXXX23	One 2-Credit VAC Course IMDAVAXXX23	Latex 2 Credits IMDASELT0224	20
III	Data Science 4 Credits IMDAMJDS0324	Data Structures using C 3+1 Credits IMDAMJDC0324	-	-	-	8	Computer Networks 4 Credits IMDAMNPN0324	One 3-Credit AEC Course IMDAAEXXXX23	One 3-Credit MDC Course IMDAMDXX0023	-	-	Matlab 2 Credits IMDASEMI0324	20
IV	Algorithms Design & Analysis 4 Credits IMDAMJAD0424	Linear Algebra 4 Credits IMDAMJLA0424	Artificial Intelligence 3+1 Credits IMDAMJAI0424	DBMS 4 Credits IMDAMJDB0424	-	16	Software Engineering 4 Credits IMDAMNSE0424	-	-	-	-	-	20
V	Evolutionary Computing 4 Credits IMDAMJEC0524	Probability Theory 4 Credits IMDAMJPT0524	Machine Learning 3+1 Credits IMDAMJML0524	Cloud Computing 4 Credits IMDAMJCC0524	-	16	Data Mining 4 Credits IMDAMNDM0524	-	-	-	-	-	20
VI	Deep Learning Essentials 4 Credits IMDAMJDL0624	Calculus 4 Credits IMDAMJCC0624	Digital Image Processing 3+1 Credits IMDAMJDI0624	Time Series Analysis & Forecasting 4 Credits IMDAMJTS0624	-	16	Expert System 4 Credits IMDAMNES0624	-	-	-	-	-	20
VII	JAVA Programming 3+1 Credits IMDAMJJP0724	Optimization Techniques 4 Credits IMDAMJOT0724	Deep Learning Architecture 3+1 Credits IMDAMJDL0724	Computer Vision 4 Credits IMDAMJCV0724	Big Data Analytics 4 Credits IMDAMJBD0724	20	-	-	-	-	-	-	20
VIII	Intrusion Detection Systems 4 Credits IMDAMJID0824	Generative AI 4 Credits IMDAMJGA0824	Reinforcement Learning 4 Credits IMDAMJRL0824	Natural Language Processing 4 Credits IMDAMJNL0824	Fuzzy Systems 3+1 Credits IMDAMJFS0824	20	-	-	-	-	-	-	20
<b>OPTION-I (COURSE WORK)</b>													
IX	Elective I 4 Credits IMDAMJXX0924	Elective II 4 Credits IMDAMJXX0924	Elective III 4 Credits IMDAMJXX0924	Elective IV 4 Credits IMDAMJXX0924	Elective V 4 Credits IMDAMJXX0924	20	-	-	-	-	-	-	20
<b>OPTION-II (RESEARCH)</b>													
IX	<b>RESEARCH 20</b>					<b>20</b>	-	-	-	-	-	-	<b>20</b>
X	<b>RESEARCH :20</b>					<b>20</b>	-	-	-	-	-	-	<b>20</b>

Elective I	Elective II	Elective III	Elective IV	Elective V
• Large Language Models IMDAMJLL0924	• Embedded Systems IMDAMJES0924	• Distributed Algorithms IMDAMJDA0924	• Graph Machine Learning IMDAMJGM0924	• Robotics IMDAMJRB0924
• AI Assurance IMDAMJAA0924	• Business Intelligence IMDAMJBI0924	• AI Tools & Applications IMDAMJAT0924	• Social Network Analysis & Mining IMDAMJSN0924	• Banking & Finance Service Analytics IMDAMJBF0924

**Total Credits 200**

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