



**GALGOTIAS
UNIVERSITY**



School of Artificial Intelligence

**Bachelor of Technology in Artificial Intelligence and
Data Science**

2026-2030

Curriculum

First Semester B. Tech (AIDS)							
S. No.	Course Code	Course Title	Credit Structure				Total Credits
			L	T	P	S	C
1	101	Python for AI	3	0	1	0	4
2	102	Mathematics for AI	3	1	0	0	4
3	103	DBMS	3	0	1	0	4
4	104	Data Preprocessing and Exploratory Data Analysis	1	0	1	0	2
5	105	Foundation of Data Science	2	0	1	0	3
6	106	Innovation Lab	0	0	1	0	1
7	107	Communication Skills	2	0	0	0	2
Second Semester B. Tech (AIDS)							
1	201	Machine Learning	3	0	1	0	4
2	202	Probability and Statistics	3	1	0	0	4
3	203	Data Structure	3	0	1	0	4
4	204	Data Visualization Using BI Tools	2	0	1	0	3
5	205	Introduction of Entrepreneurship	2	0	0	0	2
6	206	Next Generation Innovation Lab	0	0	1	0	1
7	207	Indian Knowledge System	2	0	0	0	2
Third Semester B. Tech (AIDS)							
1	301	Deep Learning	3	0	1	0	4
2	302	Cloud Computing	3	1	0	0	4
3	303	Design and Analysis of Algorithms	3	0	1	0	4
4	304	Statistical Learning and Predictive Analytics	2	0	1	0	3
5	305	Prompt Engineering	2	0	0	0	2
6	306	GPU Lab	0	0	1	0	1
7	307	Design thinking and Innovation 1	2	0	0	0	2
Fourth Semester B. Tech (AIDS)							
1	401	Natural language processing	3	0	1	0	4
2	402	Data Engineering, Pipelines and MLOps	3	1	0	0	4
3	403	Operating system	3	0	1	0	4
4	404	Human Computer Interaction	2	0	1	0	3
5	405	Ethical and Responsible AI	2	0	0	0	2
6	406	Big Data Analytics using Hadoop	0	0	1	0	1

7	407	Big Data Analytics	2	0	0	0	2
Fifth Semester B. Tech (AIDS)							
1	501	Generative AI	3	0	1	0	4
2	502	Data Mining and warehousing	3	1	0	0	4
3	503	Computer networks	3	0	1	0	4
4	504	Elective 1	2	0	1	0	3
5	505	Design thinking and Innovation 2	2	0	0	0	2
6	506	Data Science Model Development Lab	0	0	1	0	1
7	507	Research Methodology and IPR	2	0	0	0	2
Sixth Semester B. Tech (AIDS)							
1	601	Agentic AI and RAG	3	0	1	0	4
2	602	Time Series Analytics and Forecasting	3	0	1	0	4
3	603	Software Engineering	3	0	0	0	3
4	604	Elective 2	2	0	1	0	3
5	605	Data Ethics, Cyber Law and Governance	2	0	0	0	2
6	606	Data Science Product Development	0	0	2	0	2
7	607	UG Research	2	0	0	0	2
Seventh Semester B. Tech (AIDS)							
1	701	Capstone Project Phase 1	0	0	6	0	6
2	702	Summer Internship	0	0	2	0	2
3	703	Elective 3	3	0	1	0	4
4	704	Elective 4	3	0	1	0	4
5	705	Open Elective 1	2	0	0	0	2
6	706	Open Elective 2	2	0	0	0	2
Eighth Semester B. Tech (AIDS)							
1	801	Capstone Project Phase 2	0	0	14	0	14
2	802	MOOC Certification	0	0	2	0	2
3	803	Industrial Training	0	0	4	0	4
List of Electives							
S.N.	Course Code	Elective 1 (Sem V)	L	T	P	S	Credits
1	504	Healthcare Data Analytics	2	0	1	0	3
2	504	Financial Analytics and FinTech Intelligence	2	0	1	0	3
3	504	Retail, Marketing and Customer Analytics	2	0	1	0	3

4	504	HR Analytics and People Intelligence	2	0	1	0	3
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S.N.	Course Code	Elective 2 (Sem VI)	L	T	P	S	Credits
1	604	Social media and Web Analytics	2	0	1	0	3
2	604	Streaming Data Analytics	2	0	1	0	3
3	604	Recommender Systems	2	0	1	0	3
4	604	Advanced Time Series Forecasting	2	0	1	0	3

S.N.	Course Code	Elective 3 (Sem VII)	L	T	P	S	Credits
1	703	Advanced Predictive Analytics	2	0	1	0	3
2	703	Multimodal AI and Vision-Language Analytics	2	0	1	0	3
3	703	AutoML and Low-Code AI Development	2	0	1	0	3
4	703	Reinforcement Learning for Decision Systems	2	0	1	0	3

S.N.	Course Code	Elective 4 (Sem VII)	L	T	P	S	Credits
1	704	Edge AI and TinyML	2	0	1	0	3
2	704	Data Science for IoT and Sensor Networks	2	0	1	0	3
3	704	Generative AI for Business Analytics	2	0	1	0	3
4	704	AI for Digital Twin and Simulation Analytics	2	0	1	0	3

S.N.	Course Code	Open Elective 1 (Sem VII)	L	T	P	S	Credits
1	705	MLOps, LLMOps and Model Monitoring	2	0	0	0	2
2	705	Digital Transformation and Industry 4.0	2	0	0	0	2
3	705	Introduction to FinTech and Digital Economy	2	0	0	0	2
4	705	Smart Agriculture and Smart City	2	0	0	0	2

S.N.	Course Code	Open Elective 2 (Sem VII)	L	T	P	S	Credits
1	706	Entrepreneurship with AI and Data Science	2	0	0	0	2
2	706	Digital Marketing Analytics	2	0	0	0	2
3	706	Technology for Social Innovation	2	0	0	0	2
4	706	AI for Education and Learning Analytics	2	0	0	0	2