



GALGOTIAS UNIVERSITY



School of Skill Sciences & Entrepreneurship

Program

Bachelor of Technology in Data Science

Curriculum

First Semester B.Tech. Data Science							
S. No.	Course Code	Course Title	Credit Structure				Total Credits
			L	T	P	S	C
1		Mathematics for Data Science	1	1	1	1	4
2		Python Programming	1	1	1	1	4
3		Data Structures & Algorithms	1	1	1	1	4
4		Computing Systems, Linux & Developer Tools	1	1	0	1	3
5		Fundamentals of Entrepreneurship	1	0	0	1	2
6		Environment and Sustainability Studies	1	0	0	1	2
7		G-PULSE-I	0	0	0	1	1
8		GIG Internship	0	0	0	1	1
CREDITS							21
Second Semester B.Tech. Data Science							
1		Statistics & Probability	1	1	1	1	4
2		SQL & Database Systems	1	0	1	1	3
3		Data Engineering Fundamentals	1	1	1	1	4
4		Data Visualization (Power BI & Tableau)	1	0	1	1	3
5		Entrepreneurship and Innovation	1	0	0	1	2
6		G-PULSE-II	0	0	0	1	1
7		GIG Internship	0	0	0	1	1
8		Internship-I	0	0	0	8	8
CREDITS							26
Third Semester B.Tech. Data Science							
1		Exploratory Data Analysis	1	1	1	1	4
2		Machine Learning	1	1	1	1	4
3		Feature Engineering	1	1	0	1	3
4		Data Warehousing & Lakehouse	1	1	1	1	4
5		Entrepreneurial Strategic approach	0	0	0	2	2
6		Indian Knowledge System	1	0	0	1	2
7		G-PULSE-III	0	0	0	1	1
8		GIG Internship	0	0	0	1	1
CREDITS							21
Fourth Semester B.Tech. Data Science							
1		Deep Learning	1	1	1	1	4
2		Computer Vision	1	1	1	1	4
3		Natural Language Processing	1	0	1	1	3
4		Cloud Computing & Distributed AI	1	0	1	1	3
5		Entrepreneurship and Family Business	0	0	0	2	2
6		G-PULSE-IV	0	0	0	1	1
7		GIG Internship	0	0	0	1	1
8		Internship-II	0	0	0	8	8
CREDITS							26
Fifth Semester B.Tech. Data Science							
1		Generative AI & Large Language Models	1	1	1	1	4
2		Prompt Engineering & AI Agents	1	1	1	1	4
3		Big Data Analytics	1	1	1	1	4
4		Domain Elective - I	1	1	0	1	3
5		Open Elective - I	1	1	0	1	3
6		Start Up Operations, Marketing and Growth	0	0	0	2	2
7		G-PULSE-V	0	0	0	1	1
8		GIG Internship	0	0	0	1	1
CREDITS							22

Sixth Semester B.Tech. Data Science								
1		MLOps & AI Deployment	1	1	1	1	4	
2		AI Product Engineering	1	1	1	1	4	
3		Data Ethics, Cyber Law and Governance	1	0	1	1	3	
4		Domain Elective - II	1	0	1	1	3	
5		Open Elective - II	1	1	0	1	3	
6		G-PULSE-VI	0	0	0	1	1	
7		GIG Internship	0	0	0	1	1	
8		Internship-III	0	0	0	8	8	
CREDITS								27
Seventh Semester B.Tech. Data Science								
1		Multimodal AI	1	1	1	1	4	
2		Domain Elective – III	1	1	1	1	4	
3		Open Elective - III	1	0	1	1	3	
4		Capstone - Innovative Cyber Based Project	0	0	2	6	8	
5		G-PULSE-VII	0	0	0	1	1	
6		GIG Internship	0	0	0	1	1	
CREDITS								21
Eighth Semester B.Tech. Data Science								
1		Internship-IV	0	0	0	20	20	
CREDITS								22

Total Credits Semester Wise = 21 + 26 + 21 + 26 + 22 + 27 + 21 + 20 = 184 Credits

Domain & Open Electives:

Domain Elective Subjects List	
Domain Elective – I	- Time Series Forecasting - Secure and Responsible AI - Financial Analytics - Healthcare Analytics
Domain Elective – II	- Reinforcement Learning - Graph Machine Learning - Edge AI - Recommendation Systems
Domain Elective – III	- Agentic AI Systems - Federated Learning - AI for Robotics - Quantum Machine Learning
Open Elective Subjects List	
Open Elective – I	- Product Analytics - Business Intelligence - Digital Marketing Analytics - Supply Chain Analytics
Open Elective – II	- Blockchain Analytics - IoT Analytics - ESG & Sustainability Analytics - Cloud FinOps
Open Elective – III	- AI Entrepreneurship - AI Consulting - Innovation & Technology Management - Research Methodology