

Curriculum

Artificial Intelligence & Data Science

Semester	Subjects	Credits
1	Mathematics I For CSE Stream	4
	Applied Physics For CSE Stream (Integrated)	4
	Principles Of Programming Using C (Integrated)	4
	Introduction To Electrical Engineering	3
	Introduction To AI	3
	Communicative English	1
	Samskrutika Kannada / Balake Kannada	1
2	Mathematics II For CSE Stream	4
	Applied Chemistry For CSE Stream (Integrated)	4
	Advanced Programming In C (Integrated)	4
	Introduction To Electronics And Communication	3
	Computer Aided Engineering Drawing	3
	Innovation and design thinking	1
	Indian Constitution	1
3	Discrete Mathematics – I	3
	Data Structures using C	4
	Database Management System	4
	Foundations of Data Science	3
	Python for Data Science	3
	Operating System	3
4	Probability and Linear Algebra	3
	Design & Analysis of Algorithms	4
	Machine Learning-I	4
	Soft computing techniques	3
	Image Processing	3
	Programming in Java	3
5	Economics and Management in Data Science	3
	Big Data Analytics Tools & Techniques	4
	Machine Learning – II	4
	Machine Learning – II Laboratory	1
	Professional Elective - I	3
	Mini Project	2
	Research Methodology and IPR	3
	Environmental Studies	2
	National Service Scheme	0
	Physical Education (PE) (Sports and Athletics)	0
	Yoga	0
6	Data Visualization using Tableau	4
	Neural Networks & Deep Learning	4
	Professional Elective - II	3
	Open Elective -I	3
	Major Project Phase - I	2
	Design lab	1
	Web Technologies	1
	National Service Scheme	0
	Physical Education (PE) (Sports and Athletics)	0
	Yoga	0
	Indian Knowledge System	0
7	Natural Language Processing	4
	Advanced Data Visualization	4
	Deep Learning for Computer Vision	4
	Professional Elective-III	3
	Open Elective- II	3
	Major Project Phase-II	6
8	Professional Elective -IV (Online Courses)	3
	Open Elective - III (Online Courses)	3
	Internship (Industry/Research) (14 - 20 weeks)	10

Electives	
Professional Electives	Open Electives
Introduction to NoSQL	Big data analytics
Computer Networks	Foundations of Data Science
Introduction to Quantum Computing	Neural Networks & Deep Learning
Cryptography	Data Visualization Tools
Cloud Computing	Large Language Models
Cyber Security	
Predictive and Time Series Analysis	
Data Science for Security	