

Course Structure for B Tech Artificial Intelligence Programme (Batch 2023-27)

First Year

Semester - I			Semester - II		
S. No.	Course	Credits	S. No.	Course	Credits
1	Calculus	4	1	Linear Algebra and Differential Equations	4
2	Physics	4	2	Probability and Random variables	3
3	English Communication	1	3	Elements of Biology	3
4	Programming for Problem Solving	4	4	Engineering Graphics and Design	3
5	Basic Electrical and Electronics Engineering	3	5	Principles of Economics and Management	3
6	Environmental Science	2	6	Python Programming	1
7	Critical Thinking	0	7	Digital Manufacturing Laboratory	1
8	Constitution of India	0	8	Electrical and Electronics Workshop	1
			9	Professional Ethics	1
			10	Design Thinking	0
	Total	18		Total	20

Second Year

Semester - III			Semester - IV		
S. No.	Course	Credits	S. No.	Course	Credits
1	Discrete Mathematics	3	1	Statistical Methods	3
2	Random processes and Estimation Techniques	4	2	Signal and Image Processing	3
3	Computer Architecture	2	3	Machine Learning	4
4	Operating Systems	3	4	Database Management Systems	3
5	Intelligent Systems - I	3	5	Optimization Techniques	3
6	Data Structures and Algorithms	4	6	Management Accounting for Engineers	2
7	Technical Communication	1	7	Integral Transforms	3
8	Community Service	0			
	Total	20		Total	21

Third Year

Semester - V			Semester - VI		
S. No.	Course	Credits	S. No.	Course	Credits
1	Computer Networks	3	1	Advanced Topics in Machine Learning	3
2	Deep Learning	3	2	Agile Product Development with DevOps	3
3	Natural Language Processing	3	3	Robotics	3
4	Department Elective - I	3	4	Department Elective - III	3
5	Department Elective - II	3	5	Department Elective - IV	3
6	Open Elective I	3	6	Open Elective - III	3
7	Open Elective - II	3	7	Open Elective - IV	3
			8	Interpersonal Skills	1
	Total	21		Total	22

Fourth Year					
Semester - VII			Semester - VIII		
S. No.	Course	Credits	S. No.	Course	Credits
1	Applied Time Series Analysis	3	1	Project	10
2	Computer Vision	3			
3	Generative AI	3			
4	Department Elective - V	3			
5	Department Elective - VI	3			
6	Open Elective - V	3			
7	Capstone Project	4			
	Total	22		Total	10
	Total Credits for the Programme	154			

Department Electives - I, II, III, IV, V & VI		
S. No.	Course	Credits
1	Compiler Design	3
2	Mobile Application Development	3
3	Distributed Computing	3
4	Web Programming	3
5	Cryptography and Network Security	3
6	Design and Analysis of Algorithms	3
7	Robotic Process Automation	3
8	Internet of Things (IoT)	3
9	Human Computer Interaction	3
10	Biometrics	3
11	Blockchain Technology	3
12	Evolutionary Computing	3
13	Cloud Computing	3
14	Recommendation Systems	3
15	Big Data Analytics	3
16	Reinforcement Learning	3
17	Intelligent Systems - II	3