DEPARTMENT OF CIVIL ENGINEERING
B.Tech Civil Engineering

Year :	(2023-27)								Semester I
Subject	Name of the Course	Type of Course	Teaching Scheme					Total Hrs	
			L	T	P	S	Credits		
1	Communication Skills for Engineers	I	2	0	1	0	3	4	
2	Multi Variable Calculus	I	3	0	1	0	4	5	
3	Semi conductor Physics / Biology for Engineers	I	3	0	1	0	4	5	
4	Basic Electrical & Electronics Engg. / Engineering Graphics and Introduction to Digital Fabrication	I	3	0	1	0	4	5	
5	Programming for Problem Solving - C	C	3	0	1	1	5	8	
6	YOGA / Environmental Impact Analysis	Mng	2	0	0	0	0	2	
	Total		16	0	5	1	20	29	

Year :	(2023-27)								Semester II
Subject	Name of the Course	Type of Course	Teaching Scheme					Total Hrs	
			L	T	P	S	Credits		
1	Linear Algebra & Differential Equations	T	3	0	0	0	3	3	
2	Discrete Mathematics / Engineering Mechanics	T	3	0	0	0	3	3	
3	Basic Electrical & Electronics Engg. / Engineering Graphics and Introduction to Digital Fabrication	I	3	0	1	0	4	4	
4	Semi conductor Physics / Biology for Engineers	I	3	0	1	0	4	5	
5	Engineeering Workshop / Introduction of Digital System	I	2	0	1	0	3	4	
6	OOPS	C	3	0	1	1	5	8	
7	YOGA / Environmental Impact Analysis	Mng	2	0	0	0	0	2	
	Total		19	0	4	1	22	29	

Year :	(2023-27)								Semester III
Subject	Name of the Course	Type of Course	Teaching Scheme					Total Hrs	
			L	T	P	S	Credits		
1	Mathematics-III (Functions of Complex Variables and Transforms)	T	3	0	0	0	3	3	
2	Environmental Monitoring and Analysis	T	2	0	0	0	2	2	
3	Mechanics of Materials	I	3	0	1	0	4	5	
4	Fluid Mechanics	I	3	0	1	0	4	5	
5	Surveying	C	3	0	1	1	5	8	
6	Computer designs in Civil Engineering	I	1	0	1	0	3	5	
7	Communication Competency & Aptitude Building -1	T	1	0	1	0	2	3	
	Total		16	0	5	1	**23**	28	

Year :	(2023-27)								Semester IV
Subject	Name of the Course	Type of Course	Teaching Scheme					Total Hrs	
			L	T	P	S	Credits		
1	Probability and Statistics	T	3	0	0	0	3	3	
2	Hydrology & Hydraulic Systems	T	3	0	0	0	3	3	
3	Construction Engineering	C	3	0	1	1	5	8	
4	Geotechnical Engineering	I	3	0	1	0	4	5	
5	Remote Sensing & Geographical Information System	I	3	0	1	0	4	5	
6	Structural Analysis	I	3	0	1	0	4	5	
7	Communication Competency & Aptitude Building -2	T	1	0	1	0	2	3	
	Total		19	0	5	1	25	32	

Year :	(2023-27)								Semester V

Subject	Name of the Course	Type of Course	Teaching Scheme					Total Hrs
			L	T	P	S	Credits	
1	Design of Reinforced Concrete Structures	I	3	0	0	0	3	5
2	Water Supply & Treatment Systems	T	3	0	0	0	3	3
3	Transportation Engineering	C	3	0	1	1	5	8
4	Advanced Structural Analysis	I	3	0	1	0	4	3
5	Foundation Engineering	T	3	0	0	0	3	3
6	Program Elective I	T	3	0	0	0	3	3
7	Summer Internship	T	0	0	0	0	1	0
7	Communication Competency & Aptitude Building -3	T	1	0	0	1	2	
	Total		19	0	2	2	24	25

Year :	(2023-27)							Semester VI

Subject	Name of the Course	Type of Course	Teaching Scheme					Total Hrs
			L	T	P	S	Credits	
1	Railway, Airports and Harbour Engineering	T	2	0	0	0	2	2
2	Sewage Treatment Systems	T	2	0	0	0	2	2
3	Construction Estimating and Costing	C	3	0	1	1	5	8
4	Open Elective - I	T	3	0	0	0	3	3
5	Program Elective - II	T	3	0	0	0	3	3
6	Civionics	I	1	0	1	0	2	3
7	Civil-3D Designs	I	1	0	1	0	2	6
8	Technical Paper writing		0	0	1	0	0	2
7	Campus to Corporate	T	1	0	1	0	2	3
	Total		16	0	5	1	21	32

Year :	(2023-27)							Semester VII

Subject	Name of the Course	Type of Course	Teaching Scheme					Total Hrs
			L	T	P	S	Credits	
1	Program Elective - III	T	3	0	0	0	3	3
2	Program Elective - IV	T	3	0	0	0	3	8
3	Program Elective - V	T	3	0	0	0	3	3
4	Construction Planning & Management	T	3	0	0	0	3	3
5	Design of Steel Structures	T	3	0	0	0	3	8
6	Capstone Phase-1		0	0	0	0	3	0
7	Industrial Internship		0	0	0	0	1	0
	Total		15	0	0	0	19	25

Year :	(2023-27)							Semester VIII

Subject	Name of the Course	Type of Course	Teaching Scheme					Total Hrs
			L	T	P	S	Credits	
1	Capstone Phase 2		0	0	0	0	9	0
	Total		0	0	0	0	**9**	0

Total Credits	163

List of Program Electives						
Sr.No.	Course Name	Course type	L	T	P	S	C
1	Ground Improvement Techniques	T	3	0	0	0	3
2	Soil Dynamics and Machine Foundation	T	3	0	0	0	3
3	Structures on Expansive Soils	T	3	0	0	0	3
4	Mass Transport Management	T	3	0	0	0	3
5	Traffic Engineering	T	3	0	0	0	3
6	Highway Pavement Design	T	3	0	0	0	3
7	Pavement Constructions	T	3	0	0	0	3
8	Transportation Safety and Environment	T	3	0	0	0	3
10	Air and Noise Pollution	T	3	0	0	0	3
11	Solid Waste Management	T	3	0	0	0	3
12	Bioenergy Technologies	T	3	0	0	0	3
13	Environmental Ecology	T	3	0	0	0	3
14	Rehabilitation of structures & Vaastu Principles	T	3	0	0	0	3
15	Bridge Engineering	T	3	0	0	0	3
16	Earthquake Engineering	T	3	0	0	0	3
17	Advanced Concrete Design	T	3	0	0	0	3
18	Construction Planning and Management	T	3	0	0	0	3
19	Economics and Project Finance for Civil Engineers	T	3	0	0	0	3
20	Construction Contracts Administration and Management	T	3	0	0	0	3

B.Tech Civil Engg (With Specilization in Smart Cities)

Sr.No.	Course Name	Course type	L	T	P	S	C
1	Sustainable Transportation	T	3	0	0	0	3
2	Demography for Smart City	T	3	0	0	0	3
3	Value Engineering and Valuation	T	3	0	0	0	3
4	Infrastructure Development	T	3	0	0	0	3
5	Metropolitan Planning, Development and Management	T	3	0	0	0	3
6	GIS for Smart Cities	I	3	0	1	0	4
7	AI & ML for Smart Cities	I	3	0	1	0	4
8	Smart Infrastructure Systems	T	3	0	0	0	3
9	Advanced Materials for Smart Structures	T	3	0	0	0	3
10	Urban Planning and Management	T	3	0	0	0	3
		Total					32

B.Tech Civil Engg (With Specilization in Computer Applications)

Sr.No.	Course Name	Course type	L	T	P	S	C
1	Artificial Intelligence & Machine Learning Applications	C	3	0	1	1	5
2	Geospatial Data Analysis	I	2	0	1	0	3
3	Fuzzy Logic in Civil Applications	I	3	0	1	0	4
4	IOT for Structural Health monitoring	I	3	0	1	0	4
5	MATLAB Simulations for Civil Engineers	I	2	0	2	1	5
6	Big data analytics	T	3	0	0	0	3
7	Mobile Application Development	I	2	0	2	1	5
8	Digital Twin Technology	T	3	0	0	0	3
		Total					32

B.Tech Civil Engg (With Specilization in Transportation Engineering)

Sr.No.	Course Name	Course type	L	T	P	S	C
1	Transport Economics and Finance management	T	3	0	0	0	3
2	Traffic Flow Analysis	T	3	0	0	0	3
3	Highway construction and Maintenance	T	3	0	0	0	3
4	Rural Road Technology	T	3	0	0	0	3
5	Traffic Management & Design	T	3	0	0	0	3
6	Public Transportation System	T	3	0	0	0	3
7	Transportation Network Analysis	T	3	0	0	0	3
8	ML and Deep learning techniques on transportation	I	3	0	1	0	4
9	IOT application for Traffic engineering	I	3	0	1	0	4
10	Transportation and Environmental Sustainability	T	3	0	0	0	3

B.Tech Civil Engg (With Specilization in Entrepreneurship)

Sr.No.	Course Name	Course type	L	T	P	S	C
1	Theory & Practices of Entrepreneurship	C	3	0	1	1	5
2	Exploring Business opportunity and Market Survey	C	3	0	1	1	5
3	Legal Incorporation & Incubation	C	3	0	1	1	5
4	Market Launch and Funding	C	3	0	1	1	5
5	Start Up launch and Market Penetration/Managing family business	I	2	0	6	0	5
6	Behavioural Science.	T	3	0	0	0	3
7	Quantitative Techniques for Management	I	3	0	2	0	4
		Total					32