

B. Tech. (Civil Engineering) 2022-26

Year	Semester-I	L	P	U	Semester-II	L	P	U
I	Mathematics-I	3	0	3	Mathematics-II	3	0	3
	English Language Skills	2	2	3	Professional Communication	3	0	3
	Chemistry	3	2	4	Environment Sciences & SDGs	2	0	2
	Essence of Indian Traditional Knowledge (Audit)	0	0	0	Physics	3	2	4
	Introduction to Electrical and Electronics Sciences	3	2	4	Digital Signal Processing	3	0	3
	Computer Programming	3	2	4	Introduction to AI and DS	3	0	3
	Engineering Graphics	1	4	3	Digital Fabrication	2	4	4
	Total No of Credits	21			Total No of Credits	22		
II	Semester-III				Semester-IV			
	Introduction to IoT	3	0	3	Optimization Techniques	3	2	4
	Object Oriented Programming Concepts	2	4	4	Environmental Engineering	2	2	3
	Mathematics-III	3	0	3	Water Resources Engineering	3	0	3
	Principles of Managerial Economics	3	0	3	Soil Mechanics	3	2	4
	Engineering Mechanics	3	0	3	Building Materials and Construction	3	2	4
	Surveying	2	2	3	Mechanics of solids	2	2	3
	Fluid Mechanics and HM	2	2	3	CRT	0	2	1
	CRT	0	2	1				
Total No of Credits	23			Total No of Credits	22			
SUMMERINTERNSHIP PROGRAM I (for Internship option only)							5	
III	Semester-V				Semester-VI			
	Structural Analysis	3	2	4	Open Elective	3	0	3
	Machine Learning Applications in Civil Engineering	2	0	2	Intelligent Transport Systems	3	0	3
	Highways and Tunnel Engineering	3	2	4	Design of Steel Structures	3	0	3
	Foundation Engineering	3	2	4	Construction Planning and Management	3	2	4
	Water Supply and Waste Water Engineering	3	0	3	Design of Concrete Structures	3	0	3
	Building Drawing, Estimation, Costing and Valuation	3	0	3	Airports, Railways and Harbor Engineering	3	0	3
	Audit Course				Special Project / Capstone Project	0	6	3
	CRT	0	2	1	CRT	0	2	1
	Total No of Credits	21			Total No of Credits	23		

IV	Semester-VII		Semester-VIII	
	Internship Program II /	20	Internship Program II /	20
	Thesis & Seminar /		Thesis & Seminar /	
	Electives (4) + Professional/Discipline Elective	Or 18	Electives (4) + Professional/ Discipline Elective	Or 18
	Humanities Elective (1) (Digital Humanities)		Humanities Elective (1) (Digital Humanities)	
Total No of Credits		20/18	Total No of Credits	18/20
Total No of Credits				175

The Program structure is subject to change (if required).

Discipline Elective (VII/VIII Semester)				
STRUCTURAL ENGINEERING				
Concrete Technology	3	0	2	4
Finite Element Analysis	3	1	2	4
Automation and Building Information Modeling	2	0	2	3
Prestressed Concrete and Bridge Engineering	3	0	0	3
Design of Industrial Structures	3	0	0	3
Advanced Structural Analysis	3	0	0	3
GEOTECHNICAL ENGINEERING				
Ground Improvement Techniques	3	0	0	3
Soil Dynamics and Machine Foundation Engineering	3	0	0	3
Design of Reinforced Earth and Geotextiles	3	0	0	3
Analysis and Design of Shallow and Deep Foundation	3	0	0	3
TRANSPORTATION ENGINEERING				
Urban Transport Planning	3	0	0	3
Pavement Evaluation, Rehabilitation and Maintenance	3	0	0	3
GIS and Remote Sensing	3	0	0	3
Mass Transportation Operations and Management	3	0	0	3
WATER RESOURCES AND ENVIRONMENTAL ENGINEERING				
Design of Hydraulic Structures (STR/WR)	3	0	0	4
Hazardous Waste Management	3	0	0	3
Environmental Impact Assessment	3	0	0	3

Disaster Management and Mitigation	3	0	0	3
Irrigation Engineering	3	0	0	3
GENERAL ELECTIVE				
Sustainability Development	3	0	0	3
Fire Safety Engineering	3	0	0	3
Safety Engineering	3	0	0	3
MATHEMATICS ELECTIVE				
Probability, Statistics and Linear programming	3	1	0	3
Numerical Methods	3	1	0	3

Humanities Electives I (VII/VIII Semester)				
Course Title	L	P	U	
Social Innovation	3	0		3