

Tentative Course Structure of B. Tech: Civil Engineering

S.No.	SEMESTER I	SEMESTER II	SEMESTER III	SEMESTER IV	SEMESTER V	SEMESTER VI	SEMESTER VII	SEMESTER VIII
	I Year		II Year		III Year		IV Year	
1.	Civil Engineering Materials & Construction	Surveying	Transforms & Vector Calculus	Transportation Engineering – I	Waste Water Engineering	Engineering Hydrology & Irrigation	Departmental Elective# (DE-3)	Departmental Elective* (DE-5)
2.	Computer Programming	Strength of Material	Data Structures	Water Supply Engineering	Structural Design & Drawing (RCC)	Structural Design & Drawing (Steel)	Departmental Elective* (DE-4)	Open Category Course* (OC-3)
3.	Engineering Mechanics	Concrete Technology	Fluid Mechanics – II	Estimating Costing & Contracting	Data Science	Artificial Intelligence & Machine Learning	Open Category Course *(OC-2)	Industry Internship/ Research Internship/ Innovation & Start-up
4.	Building Design & Drawing	Fluid Mechanics – I	Geotechnical Engineering – I	Geotechnical Engineering – II	Transportation Engineering - II	Departmental Elective* (DE-2)	Skill Enhancement Program/Research Internship/ On Job Training	Professional Development ##
5.	Basic Electrical & Electronics Engineering	Matrices & Calculus	Structural Analysis – I	Structural Analysis - II	Departmental Elective* (DE-1)	Open Category Course (OC-1)	Creative Problem Solving	
6.	Computer Programming Lab	Building Materials & Construction Lab	Fluid Mechanics Lab	Transportation Engineering Lab	Environmental Lab	Structure Engineering Lab		
7.	Electrical & Electronics Engineering Lab	Problem Solving through Python Programming	Survey Practice Lab	Geotechnical Engineering Lab	Data Science Lab	Artificial Intelligence & Machine Learning Lab		
8.	Semester Proficiency [§]	Semester Proficiency [§]	Semester Proficiency [§]	Civil Engineering Drawing Lab	Semester Proficiency [§]	Semester Proficiency [§]		
9.	Micro Project-I [#]	Micro Project-II [#]		Semester Proficiency [§]	Professional Skills & Competencies - I	Professional Certification		
10.	Engineering Chemistry Lab ^{§§}	Engineering Physics Lab ^{§§}	Macro Project-I [#]	Macro Project-II [#]	Cornerstone Project	Professional Skills & Competencies - II		
11.	Novel Engaging Course (Activity Based Learning)	Language Lab	--	---	---	Capstone Project		
12.	MAC: Universal Human Values & Professional Ethics	NEC: (Activity Based Learning)	Self-learning/ Presentation (SWAYAM/NPTEL/MOOC)	NEC (Activity Based Learning)	---	---		
13.	---	Skill Internship Program (Soft Skills)	NEC (Activity Based Learning)	Skill Internship Program	---	MAC: Disaster Management		
14.	Mandatory Workshop on Report Writing at Department Level	MAC: Sustainability & Environmental Science	MAC: Cyber Security	MAC: Project Management, Economics & Financing	MAC: Supply Chain Management	---		

15.	Mandatory Workshop on Indian Constitution and Cultural Values at Department Level	Mandatory Workshop on Indian Knowledge System at Department Level	Mandatory Workshop: Mastering Competitive Success at Department Level	Mandatory Workshop: Writing Research Articles: Idea to Publication	Mandatory Workshop: Internships: Explore, Apply and Excel	Mandatory Workshop: Placement Readiness: Building Resume and Mastering Interview		
16.	---	Mandatory Workshop on Career Planning & Goal Setting at Department Level	---	Mandatory Workshop: Intellectual Property Rights at Department Level	---	---		
Credits	19	24	21	23	22	23	11	17