

Pre-requisites for Courses in B.Tech. (Civil Engineering)

	Course	Pre-requisite
SEM I & II	Elements of Civil Engineering & Mechanics (ECM)	(1) Basis Physics (2) Basic Mathematics with trigonometry
SEM III	(1) Strength of Materials (SOM)	Elements of Civil Engineering & Mechanics
	(2) Building Materials & Construction	No Pre Requisite required (NPR)
	(3) Fluid Mechanics	Elements of Civil Engineering & Mechanics
	(4) Basic Survey	No Pre Requisite required
	(5) Maths -III	Engineering Mathematics -I, Engineering Mathematics –II
	(6) Material Testing Lab	Strength of Materials
	(7) Surveying Practical	Basic Survey Theory
SEM IV	(1) Structural Analysis-I	Strength of Materials
	(2) Hydraulic Engineering	Fluid Mechanics
	(3) Concrete Technology	Building Material & Construction
	(4) Engineering Geology	No Pre Requisite
	(5) Building Planning & Drawing	Building Material & Construction
	(6) Numerical Technique	Mathematics – I, II and III
	(7) Fluid Mechanics & Hydraulic Engineering Lab	1. Fluid Mechanics 2. Hydraulic Engineering
	(8) Concrete Technology- lab	Concrete Technology theory
SEM V	(1) Structural Analysis-II	Structural Analysis –I
	(2) Geotechnical Engineering-I	Elements of Civil Engineering & Mechanics; Strength of Materials
	(3) Environment Engineering-I	Basic Chemistry Fluid Mechanics
	(4) Hydrology & Water Resource Engineering	Hydraulic Engineering
	(5) Advance Surveying & Geomatics	Basic Surveying
	(6) Advance Surveying & Geomatics Lab	Advance Survey & Geomatics Theory
	(7) Geology Lab	Engineering Geology Theory

	Course	Pre-requisite
SEM VI	(1) Design of RCC Structure	(1) Strength of Materials (2) Structural Analysis –I (3) Structural Analysis –II
	(2) Dept Electives (Group-I) 2a) Advanced Structural Analysis	(1) Strength of Materials (2) Structural Analysis –I (3) Structural Analysis –II
	2b)Open Channel Hydraulics	(1) Fluid Mechanics (2) Hydrology & Water Resource Engineering
	2c)Rock Mechanics	(1) Engg Geology (2) Geotechnical Engg-I (3) Geotechnical Engg-II
	2d)Air Pollution Assessment and Mitigation	(1) Environment Engineering-I (2) Environment Engineering-II
	2e) Traffic Engineering	Transporting Engineering –I
	(3) Geotechnical Engineering-II	(1) Engineering Geology (2) Geotechnical Engineering-I
	(4) Irrigation Engineering & Hydraulic Structures	(1) Hydraulic Engineering , (2) Hydrology & Water Resource Engineering
	(5) Environment Engineering-II	Environment Engineering-I
	(6) Geotechnical lab	(1) Geotechnical Engineering-I (2) Geotechnical Engineering-II
	(7) Environment Engineering Lab	(1) Environment Engineering-I (2) Environment Engineering-II

	Course	Pre-requisite
SEM VII	(1) Construction Equipment & Methods	Building Materials & Construction
	(2) Transportation Engineering-I	(1) Elements of Civil Engineering & Mechanics (2) Concrete Technology (3) Geotechnical Engineering-I
	(3) Design of Steel Structures	(1) Strength of Materials (2) Structural Analysis –I (3) Structural Analysis –II
	4) Dept Electives (Group-II)	
	4a) Finite Element Method	(1) Advanced Structural Analysis (2) Theory of Elasticity & Plasticity
	4b) Advanced Hydrology	Hydrology & Water Resource Engineering
	4c) Earth quake Engineering	(1) Engineering Geology (2) Geotechnical Engineering-1 (3) Design of RCC Structures
	4d) Solid Waste Treatment and Management	1. Environment Engineering-I 2. Environment Engineering-II
	4e) Urban Planning	(1) Building Planning & drawing (2) Transportation Engineering-I (3) Transportation Engineering-II
	5) Seminar	No Pre Requisite required
6) Civil Cad Lab	(1) Building Planning & Drawing (2) Structural Analysis –I (3) Structural Analysis –I (4) Design of RCC Structures (5) Design of Steel Structures	
7) Highway Engineering Lab	Transportation Engineering-I	

	Course	Pre-requisite
SEM VIII	(1) Estimation, Costing & Evaluation	(1) Building Planning & Drawing (2) Design of RCC Structures , (3) Design of Steel Structures
	(2) Transportation Engineering-II	Transportation Engineering-I
	(3) Dept Electives(Group -III) 3a) Design of Pre-stressed Concrete Structures	Design of RCC Structures
	3b)Advanced Hydraulic Structures	(1) Irrigation Engineering & Hydraulic Structures (2) Hydrology & Water Resource Engineering
	3c)Ground Improvement Technique	Geotechnical Engineering-II
	3d) Modelling and Monitoring of Environmental Parameters	(1) Environment Engineering-I (2) Environment Engineering-II
	3e) Elements of Bridge Engineering	(1) Structural Analysis –II (2) Design of RCC Structures
	4) Project Management	Building Materials and Construction