

Civil Engineering

1. Course Structure

Humanities and Social Sciences

18 (15:0:3)

	L:T:P	Credits
1. English	2:0:1	3
2. Professional Communication	1:0:2	3
3. Organizations	3:0:0	3
4. Economic Citizenship	3:0:0	3
5. Energy and Entropy	3:0:0	3
6. Complexity	3:0:0	3

Basic Sciences

28 (21:4:3)

	L:T:P	Credits
1. Engineering Physics	3:0:1	4
2. Engineering Chemistry	3:0:1	4
3. Problem Solving through Programming	3:0:1	4
4. Differential Equations	3:1:0	4
5. Statistics	3:1:0	4
6. Functions of Several Variables	3:1:0	4
7. Partial Differential Equations	3:1:0	4

Engineering Sciences

26 (19:0:7)

	L:T:P	Credits
1. Engineering Graphics with CAD	1:0:1	2
2. Workshop Practice	0:0:1	1
3. Engineering Materials	3:0:0	3
4. Measurements and Instrumentation	3:0:1	4
5. Ecology and Environment	3:0:1	4
6. Engineering Mechanics	3:0:1	4
7. Fluid Mechanics	3:0:1	4
8. Civil Engineering Systems	3:0:1	4

Professional Subject Core**54(45:1:8)**

	L:T:P	Credits
1. Surveying	3:0:1	4
2. Structural Analysis	3:0:0	3
3. Strength of Materials	3:0:1	4
4. Design of RCC Structures	3:0:1	4
5. Design of Steel Structures	3:0:0	3
6. Building Materials	3:0:1	4
7. Engineering Geology	3:0:0	3
8. Geotechnical Engineering	3:0:1	4
9. Construction Planning and Management	3:0:0	3
10. Hydrology	3:0:1	4
11. Applied Hydraulic Engineering	3:0:1	4
12. Irrigation Engineering	3:0:1	4
13. Water and Wastewater Engineering	3:0:0	3
14. Transportation Engineering	3:0:1	4
15. Estimating and Costing	3:0:0	3

Electives**Professional Subject Electives****Structures**

	L:T:P	Credits
1. Advanced Structural Analysis	3:0:0	3
2. Design of Earthquake Resistant Structures	3:0:0	3
3. Repair and Rehabilitation of Structures	3:0:0	3
4. Smart Structures	3:0:0	3
5. Finite Element Methods	3:0:0	3
6. Bridge Engineering	3:0:0	3

Environmental Engineering

7. Environment Impact Assessment	3:0:0	3
8. Air Pollution and Control	3:0:0	3
9. Wind Engineering	3:0:0	3
10. Coastal Zone Management	3:0:0	3

Geotechnical Engineering

11. Ground Improvement Techniques	3:0:0	3
12. Soil Dynamics and Machine Foundations	3:0:0	3
13. Reinforced Soil Structures	3:0:0	3
14. Foundation Engineering	3:0:0	3

Transportation Engineering

15. Cartography	3:0:0	3
16. Pavement Engineering	3:0:0	3
17. Computer Applications in Traffic Engineering	3:0:0	3
18. Railway and Airport Engineering	3:0:0	3
19. Remote Sensing	3:0:0	3

Open Electives**Open Electives**

1. Geographical Information and Positioning Systems	3:0:0	3
2. Principles of Architecture	3:0:0	3
3. Rain Water Harvesting	3:0:0	3
4. Low Cost Housing	3:0:0	3
5. Sustainable Development	3:0:0	3
6. Renewable Energy	3:0:0	3