

B. TECH CIVIL ENGINEERING

Course Structure for Batches 2018-2022

FIRST SEMESTER

Sr. No	Course Code	Course Title	Contact Hours				Credits
			L	T	P	Total	
1.	18B11MA111	Mathematics-1	3	1	-	4	4
2.	18B11PH111	Physics-1	3	1	-	4	4
3.	18B11CI111	Software development fundamental	3	1	-	4	4
4.	18B11HS111	English	2	1	-	3	3
5.	18B17PH171	Physics Lab-1	-	-	2	2	1
6.	18B17ME171	Workshop	-	-	3	3	1.5
7.	18B17CI171	Software development fundamental Lab	-	-	4	4	2
8.	18B19HS491	Human Values and Professional Ethics	2	-	-	-	-
		TOTAL				24	19.5

SECOND SEMESTER

Sr. No	Course Code	Course Title	Contact Hours				Credits
			L	T	P	Total	
1.	21B11HS211	Life Skills and Effective Communication	2	-	-	2	2
2.	18B11MA201	Mathematics-2	3	1	-	4	4
3.	18B11CL212	Chemistry	3	1	-	4	4
4.	18B11CE211	Applied Mechanics	3	1	-	4	4
5.	18B11EC212	Electrical Circuit Analysis	3	1	-	4	4
6.	18B17CL272	Chemistry Lab	-	-	2	2	1
7.	18B17CE272	Applied Mechanics Lab	-	-	2	2	1
8.	18B17EC272	Electrical Circuits Lab	-	-	2	2	1
9.	18B17ME272	Engineering Drawing & Design	-	-	3	3	1.5
10.	18B19HS492	Entrepreneurship and Startup Business	2	-	-	-	-
		TOTAL				25	22.5

*Students will undergo Summer Training during vacation after IInd Semester (optional).

THIRD SEMESTER

Sr.No	Course Code	Course Title	Contact Hours				Credits
			L	T	P	Total	
1.	18B11HS311	Managerial Economics	2	1	-	3	3
2.	18B11CE311	Mechanics of Solids	3	1	-	4	4
3.	18B11CE312	Mechanics of Fluid	3	0	-	3	3
4.	18B11CE313	Geotechnical Engineering	3	0	-	3	3
5.	18B11CE314	Surveying	3	0	-	3	3
6.	18B11CE315	Building Materials & Construction	3	-	-	3	3

7.	18B17CE375	Building Material Lab	-	-	2	2	1
8.	18B17CE374	Surveying Lab	-	-	2	2	1
9.	18B17CE372	Mechanics of Fluid Lab	-	-	2	2	1
10.	18B17CE373	Geotechnical Engineering Lab	-	-	2	2	1
11.	21B19HS399	Professional Communication Practice	2	-	-	-	-
12.	21B19HS399	Programming in Python	-	-	2	2	-
		TOTAL				27	23

FOURTH SEMESTER

Sr. No.	Course code	Course Title	Contact Hours				Credits
			L	T	P	Total	
1	18B14HS441	Concepts of Digital Marketing	2	1	-	3	3
2	18B11MA411	Numerical Methods	3	1	-	4	4
3	18B11CE411	Water Supply Engineering	3	1	-	4	4
4	18B11CE412	Structural Analysis - I	3	1	-	4	4
5	18B19GE399	Environmental Science	2	-	-	2	2
6	18B17CE471	Environmental Engineering Lab	-	-	2	2	1
7	18B17CE472	Engineering Geology lab	-	-	2	2	1
		TOTAL				20	19

*Students will undergo Summer Training during vacation after IVth Semester (optional).

FIFTH SEMESTER

Sr.No.	Course Code	Course Title	Contact Hours				Credits
			L	T	P	Total	
1	18B14HS541	Elective (Logical & Quantitative Technique)	2	1	-	3	3
2	18B11CE511	Design of Concrete Structures	3	-	-	3	3
3	18B11CE512	Highway Engineering	3	1	-	4	4
4	18B19HS599	Indian Constitution and Traditional Knowledge/	3	-	-	3	Qualifying
5			2	-	-	2	2
6	18B14CE541	Construction Technology & Management	3	-	-	3	3
7	18B14CE542	Sewage Treatment & Disposal	3	-	-	3	3
8	18B17CE572	Highway Engineering Lab	-	-	2	2	1
9	18B17CE571	Civil Engineering Software Lab	-	-	2	2	1
10	18B19CE591	Minor Project 1	-	-	4	4	2
11		Selected Foreign Language	2	-	-	2	Qualifying
						29	22

SIXTH SEMESTER

Sr. No.	Course Code	Course Title	Contact Hours				Credits
			L	T	P	Total	
1	21B14HS642	Concepts of Financial Management	3	-	-	3	3
2	18B11CE611	Foundation Engineering	3	1	-	4	4
3	18B11CE612	Steel Structure Design	3	-	-	3	3
4	18B11CE613	Water Resource Engineering	3	-	-	3	3
5		Structural Analysis - II	2	1	-	3	3
6		Airport and Railway Engineering	3	-	-	3	3
7			2/3	-	-	2/3	Qualifying
8	18B17CE671	Foundation Engineering Lab	-	-	2	2	1
9	18B19CE691	Minor Project 2	-	-	6	6	3
						29	23

Students will undergo 6 weeks **Summer Training** during vacation after VIth Semester (Compulsory).

SEVENTH SEMESTER

Sr. No.	Course Code	Course Title	Contact Hours				Credits
			L	T	P	Total	
1		Discipline Elective – 5(CE)	3	-	-	3	3
2		Discipline Elective – 6(CE)	3	-	-	3	3
3		Discipline Elective – 7 (CE)	3	-	-	3	3
4		Open Elective – 1 (Science /non engg/all branches)	3	-	-	3	3
5	18B19CE791	Major Project Part-1	-	-	-	-	4
6	18B19CE792	Summer Training	-	-	-	-	Qualifying
		TOTAL				12	16

EIGHTH SEMESTER

Sr. No.	Course code	Course Title	Contact Hours				Credits
			L	T	P	Total	
1		Discipline Elective– 8 (CE)	3	-	-	3	3
2		Discipline Elective – 9 (CE)	3	-	-	3	3
3		Open Elective -2 (Engg. Only)	3	-	-	3	3
4	18B19CE891	Major Project Part-2	-	-	-	-	8
		TOTAL				9	17

LIST OF ELECTIVES

Science Elective*

From Department with Science name or Physics or Chemistry or Maths with science code.

18B14CE545	Science of Open Channel Flow
Xxxx	Chemistry of Cement
Xxxx	Probability theory and Statistics
Xxxx	Applied Linear Algebra

Discipline Electives 1

18B14CE541	Construction Technology & Management
18B14CE543	Construction Planning and Project Management

Discipline Electives 2

18B14CE542	Sewage Treatment & Disposal
18B14CE544	Waste Water Engineering

Discipline Electives 3

18B14CE641	Structural Analysis -2
18B14CE642	Theory of Structures-1

Discipline Electives 4

18B14CE643	Airport and Railway Engineering
18B14CE644	Urban Transportation Planning & Design
18B14CE645	Mass Transportation Systems
18B14CE646	Docks and Harbor Engineering

Discipline Electives5

18B14CE741	Estimation and Costing
18B14CE742	Advanced Construction Materials
18B14CE743	Theory of Structures-2
18B14CE744	Wind Resistant Design of Structures

Discipline Electives 6

18B14CE752	Hydropower Engineering
18B14CE745	Special Reinforced Concrete Structures
18B14CE746	Rock Mechanics

18B14CE747	Environmental Management & Impact Assessment
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Discipline Electives 7

18B14CE748	Geo-environmental Engineering
18B14CE749	Pre-stressed Concrete Structure
18B14CE750	Design of Hydraulic Structures
18B14CE751	Traffic Engineering

Discipline Electives8

18B14CE841	Dam and Reservoir Design
18B14CE842	Advanced Concrete Technology
18B14CE843	Underground Technology
18B14CE844	Advanced Pavement Design

Discipline Electives9

18B14CE845	Highway Construction, Maintenance and Management
18B14CE846	Design of Water & Wastewater Treatment Plants
18B14CE847	Earthquake Engineering
18B14CE848	Advanced Foundation Engineering

List of Open Electives 1 (Science /Non Engg/all branches)

18B14HS645	Marketing Management
21B14CE853	Introduction to Sustainability

List of Open Electives 2 (Only Engg.)

18B14CE849	Disaster Management & Mitigation
18B14CE850	Remote Sensing and GIS Applications
18B14CE851	Wind Engineering (WEAC)
18B14CE852	Introduction to Disaster Management

Note: - List of electives and value added courses can be updated time to time.