

## Civil and Infrastructure Engineering

### SEMESTER - I (Common for all B.Tech Courses)

S.No	C. Code	Course	L	T	P	C
1	MA 101	Calculus	3	1	0	8
2	PH 101	Quantum Physics and Applications	2	1	0	6
3	CH 102	Fundamental Concepts and Applications of Chemistry	3	0	0	6
4	BB 103	Introduction to Modern biology	3	0	0	6
5	PH 113	Hands on Science Laboratory - I	0	0	3	3
6	CS 101	Computer Programming	3	0	2	8
7	HS 106	Design Thinking and Creativity	1	0	0	PP/NP
8	NO107/ NO105/ NO 106/ NO 108	NSO/NSS/NCC/NCA	0	0	2	2
First Semester Total Credits						37

### Semester II

S.No	Course Code	Course Name	L	T	P	Total Credits
1	CE 101	Introduction to Civil Engineering	2	1	0	6
2	CS 201	Data Structures & Algorithms	3	0	0	6
3	CS 211	Data Structures & Algorithms Lab	0	0	3	3
4	MA 103	Differential Equations I (2nd Half Semester)	3	1	0	4
5	MA 406	Introduction to Numerical Methods (1st Half Semester)	3	1	0	4
6	ME 201	Engineering Mechanics	2	1	0	6
7	ME 111	Engineering Graphics Lab	1	0	3	5
8	ME 113	Hands-on Engineering Lab	0	0	3	3
9	NO107/ NO105/ NO 106/ NO 108	NSO/NSS/NCC/NCA	1	0	0	2
Total Number of Credits						37

### Semester III

S.No	Course Code	Course Name	L	T	P	C
1	ME 203	Fluid Mechanics	2	1	0	6
2	ME 222	Mechanics of Materials	2	1	0	6

3	CE 201	Building and Construction Materials	1	1	2	6
4	HS 201	Economics	2	1	0	6
5	CE 204	Hydraulics Engineering	2	1	0	6
6	CE 203	Building Planning and Drawing	2	0	2	6
		Total Credits				36

### Semester IV

<b>S.No</b>	<b>Course Code</b>	<b>Course Name</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>C</b>
1	CE 202	Surveying and Geomatics	2	1	0	6
2	CE 212	Surveying and Geomatics Laboratory	0	0	3	3
3	CE 205	Structural Analysis	2	1	0	6
4	ME 218	Solid Mechanics Laboratory	0	0	3	3
5	ME224	Fluid Mechanics Laboratory	0	0	3	3
6	CE 301	Environmental Studies	3	0	0	6
7	CE 206	Water Resources Engineering	2	1	0	6
		Institute Elective-I	2	1	0	6
		Total Credits				39

### Semester V

<b>S.No</b>	<b>Course Code</b>	<b>Course Name</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>C</b>
1	CE 302	Design of Concrete Structures	2	1	0	6
2	CE 303	Geotechnical Engineering	2	1	0	6
3	CE 304	Transportation Engineering	2	1	0	6
4	CE 311	Transportation Engineering Laboratory	0	0	3	3
5	CE 312	Geotechnical Engineering Laboratory	0	0	3	3
6	CE 305	Environmental Engineering	2	1	0	6
7	CE 313	Environmental Engineering Laboratory	0	0	3	3
8	CE 314	Civil Engineering Software Laboratory	0	0	3	3
		Total Credits				36

### Semester VI

<b>S.No</b>	<b>Course Code</b>	<b>Course Name</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>C</b>
1	CE 306	Design of Steel Structures	2	1	0	6
2	CE 310	Sensors Technologies & Instrumentation in Civil Engineering	2	0	2	6
3	CE 308	Foundation Engineering	2	1	0	6
4	CE 315	Civil Engineering Credit Seminar	0	0	3	3

5	CE 309	Estimation and Costing in Civil Engineering	2	0	0	3
6		Institute Elective-II	2	1	0	6
7		HSS Elective-I [from Basket: 1 OR 2] (Professional/Applied Ethics)	2	1	0	6
		Total Credits				36

### Semester VII

S.No	Course Code	Course Name	L	T	P	C
1	CE 401	Construction Engineering & Management	2	1	0	6
2	CE 403	Civil and Infrastructure Engineering Design	1	0	1	3
3		Institute Elective-V				6
4		HSS Basket 1 or 2 (Elective-II)				6
5		BTP-I/Program Elective-I	0	0	6	6
		Total Credits				27

### Semester VIII

S.No	Course Code	Course Name	L	T	P	C
1		BTP-II/Program Elective-II	0	0	6	6
		Total Credits				6
		Overall Credits Required (Minimum)				254