

B. TECH CIVIL ENGINEERING

FIRST SEMESTER

Sr.No.	Course Code	Title of Course	Contact Hours				Credits
			L	T	P	Total	
1.	MA101	Engineering Mathematics - 1	3	1	-	4	4
2.	PH103	Engineering Physics-1	3	1	-	4	4
3.	HS101	English	2	1	-	3	3
4.	CS101	Computer Programming	3	1	-	4	4
5.	PH203	Engineering Physics Lab-1	-	-	2	2	1
6.	CS201	Computer Programming Lab	-	-	4	4	2
7.	ME201	Workshop Practices	-	-	3	3	1.5
8.		Value Added Course-1	-	-	-	-	-
		TOTAL				24	19.5

SECOND SEMESTER

Sr. No.	Course Code	Course Title	Contact Hours				Credits
			L	T	P	Total	
1.	HS104	Life Skills and Effective Communication	2	-	-	2	2
2.	MA103	Engineering Mathematics-2	3	1	-	4	4
3.	CH103	Engineering Chemistry	3	1	-	4	4
4.	CE102	Applied Mechanics	3	1	-	4	4
5.	EC102	Electrical Circuit Analysis	3	1	-	4	4
6.	CH202	Engineering Chemistry Lab	-	-	2	2	1
7.	CE201	Applied Mechanics Lab	-	-	2	2	1
8.	EC206	Electrical Circuits Analysis Lab	-	-	2	2	1
9.	ME203	Engineering Drawing & Design	-	-	3	3	1.5
TOTAL						29	22.5

Students may undergo optional Industrial Training during Summer Vacation after 2nd Semester.

THIRD SEMESTER

Sr.No	Course Code	Course Title	Contact Hours				Credits
			L	T	P	Total	
1.	HS102	Managerial Economics	2	1	-	3	3
2.	CE103	Mechanics of Solids	3	1	-	4	4
3.	CE105	Mechanics of Fluid	3	0	-	3	3
4.	CE106	Geotechnical Engineering	3	0	-	3	3
5.	CE107	Surveying (TRE)	3	0	-	3	3
6.	CE108	Building Materials & Construction	3	-	-	3	3
7.	CE205	Mechanics of Fluid Lab	-	-	2	2	1
8.	CE206	Geotechnical Engineering Lab	-	-	2	2	1
9.	CE207	Surveying Lab (TRE)	-	-	2	2	1
10.	CE208	Building Material Lab	-	-	2	2	1
11.		Value Added Course - 2	2	-	-	-	-
12.	CS001	Programming in Python	-	-	2	2	-
TOTAL						31	23

FOURTH SEMESTER

Sr. No.			Contact Hours				Credits
	New Code	Course Title	L	T	P	Total	
1	HS304	Concepts of Digital Marketing	2	1	-	3	3
2	MA105	Numerical Methods	3	1	-	4	4
3	CE109	Water Supply Engineering	3	1	-	4	4
4	CE110	Structural Analysis – I (STR)	3	1	-	4	4
5	GE101	Environmental Science	2	-	-	2	Audit
6	CE209	Environmental Engineering Lab	-	-	2	2	1
7	CE210	Engineering Geology lab	-	-	2	2	1
		TOTAL				21	17

Students will undergo 4 weeks Industrial Training during Summer Vacation after 4th Semester .

FIFTH SEMESTER

Sr.No.			Contact Hours				Credits
	New Code	Course Title	L	T	P	Total	
1	HS302	Concepts of Financial Management	2	1	-	3	3
2	CE111	Design of Concrete Structures	3	-	-	3	3
3	CE112	Highway Engineering	3	1	-	4	4
4		Science Elective	2	-	-	2	2
5		Discipline Elective – 1(CE)	3	-		3	3
6		Discipline Elective – 2 (CE)	3	-	-	3	3
7	CE211	Highway Engineering Lab	-	-	2	2	1
8	CE212	Civil Engineering Software Lab	-	-	2	2	1
9	CE213	Minor Project 1	-	-	4	4	2
		Total				30	22

SIXTH SEMESTER

Sr.No.			Contact Hours				Credits
	New Code	Course Title	L	T	P	Total	
1	HS305	Logical and Quantitative Techniques	3	-	-	3	3
2	CE113	Foundation Engineering	3	1	-	4	4
3	CE114	Steel Structure Design	3	-	-	3	3
4	CE115	Water Resource Engineering	3	-	-	3	3
5		Discipline Elective – 3 (CE)	2	1	-	3	3
6		Discipline Elective – 4 (CE)	3	-	-	3	3
7	CE214	Foundation Engineering Lab	-	-	2	2	1
8	CE215	Minor Project 2	-	-	6	6	3
9		Value Added Course - 3	2	-	-	2	Qualifying
		TOTAL				27	23

Students will undergo 6 weeks Industrial Training during Summer Vacation after 6th Semester .

SEVENTH SEMESTER

Sr. No.			Contact Hours				Credits
	Course code	Course Title	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	3	-	-	3	3
5	CE216	Major Project Part-1	-	-	-	8	4
6	CE217	Summer Training	-	-	-	-	Qualifying
7		Value Added Course - 4	2	-	-	2	Qualifying
		TOTAL				20	16

EIGHTH SEMESTER

Sr. No.			Contact Hours				Credits
	Course code	Course Title	L	T	P	Total	
1		Discipline Elective– 8 (CE)	3	-	-	3	3
2		Discipline Elective – 9 (CE)	3	-	-	3	3
3		Open Elective -2	3	-	-	3	3
4	CE218	Major Project Part-2	-	-	-	16	8
		TOTAL				25	17

Total Credits for B.Tech. - 160

LIST OF ELECTIVES

Value Added Courses

HS001	Human Values and Professional Ethics
HS002	Professional communication Practice
HS003	Concept of Project Management
HS004	Indian Constitution & Traditional Knowledge

HSS Electives

HS302	Concepts of Financial Management
HS303	Knowledge management
HS304	Concepts of Digital Marketing
HS305	Logical & Quantitative Technique

Science Elective*

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

CE337	Science of Open Channel Flow
CE338	Renewable Energy Science
CE339	Science of Advance Building Material
CE340	Geo-Science
PH542	Nano-Science
PH543	Materials Science and Applications

Discipline Electives 1

CE301	Construction Technology & Management
CE302	Construction Planning and Project Management

Discipline Electives 2

CE303	Waste Water Engineering
CE304	Mechanics of Fluid Machinery
CE305	Traffic Engineering (TRE)
CE306	Advanced Concrete Technology (STR)

Discipline Electives 3

CE307	Structural Analysis -2 (STR)
CE308	Theory of Structures-1
CE309	Airport and Railway Engineering (TRE)

Discipline Electives 4

CE310	Sewage Treatment & Disposal
CE311	Mass Transportation Systems
CE312	Docks and Harbor Engineering

Discipline Electives 5

CE313	Estimation and Costing
CE314	Advanced Building Materials
CE315	Theory of Structures-2
CE316	Wind Resistant Design of Structures (STR)
CE317	Urban Transportation Planning & Design (TRE)

Discipline Electives 6

CE318	Hydropower Engineering
CE319	Advanced Reinforced Concrete Structures
CE320	Rock Mechanics
CE321	Environmental Management & Impact Assessment

Discipline Electives 7

CE322	Geo-environmental Engineering
CE323	Pre-stressed Concrete Structure
CE324	Design of Hydraulic Structures

Discipline Electives 8

CE325	Dam and Reservoir Design
CE326	Underground Technology
CE327	Advanced Pavement Design

Discipline Electives 9

CE328	Highway Construction, Maintenance and Management (TRE)
CE329	Design of Water & Wastewater Treatment Plants
CE330	Earthquake Resistant Structures (STR)
CE331	Advanced Foundation Engineering

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

HS303	Knowledge management
CE332	Introduction to Sustainability

List of Open Electives 2 (Only Engg.)

CE333	Remote Sensing and GIS Applications
CE334	Wind Engineering (WEAC)
CE335	Introduction to Disaster Management
CE336	Infrastructure and Health Monitoring

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