

Course Scheme & Credit Structure

Bachelor of Technology

(B.Tech.)

Civil Engineerig



Department of Civil Engineering

Glocal School of Science& Technology

The Glocal University

Saharanpur-247122 (INDIA)

The overall credits structure

Total Credits (BC+BE) = 171

BD Core (BC)		BD Elective (BE)	
Category	Credits	Category	Credits
DC	105	Elective	15
BS	20		
BES	21		
HU	10		
Total	156	Total	15

Basic Science (BS) Core			
MA-101	Engg Mathematics-I	3-1-0	4
PH-101	Applied Physics	3-0-2	4
MA-102	Engg Mathematics-II	3-1-0	4
CH-101	Applied Chemistry	3-0-2	4
MA-201	Engg Mathematics-III	3-1-0	4
	Total BS Core	15-3-4	20

Basic Engineering & Sciences (BES) Core			
CS-101	Computer Concepts & C	2-1-2	4
CE-101	Environment and Ecology	2-1-0	3
ME-102	Engg. Graphics	1-1-2	3
EC-101	Basic Electrical & Electronics Engg.	2-1-2	4
ME-103	Engineering Mechanics	3-1-0	4
ME-104	Engineering Workshop	0-0-2	1
CE-121	Mini project-I	0-0-2	1
CE-122	Minor project-II	0-0-2	1
	Total BES Core	10-5-10	21

Humanities and Social Sciences (HU)			
HU-101	Professional Communication-I	2-1-2	4
HU-102	Professional Communication-II	2-0-2	3
HU-201	Human Values and Professional Ethics	3-0-0	3
	Total BS Core	7-1-4	10

Discipline Core (DC)			
CE-201	Fluid Mechanics	3-1-2	5
CE-202	Strength of Material	3-1-2	5
CE-203	Surveying	3-0-2	4
CE-204P	Building planning & Drawing (Auto CAD)	0-0-2	1
CE-221	Mini Project-III	0-0-2	1
CE-205	Engineering Geology	3-0-0	3
CE-206	Structural Analysis –I	3-1-2	5
CE-207	Geoinformatics	3-0-2	4
CE-208	Hydraulics & Hydraulic Machines	3-1-2	5
CE-209	Building Material & Construction	3-0-2	4
CE-210	Concrete Technology	3-0-0	3
CE -222	Mini Project-IV	0-0-2	1
CE-301	Geotechnical Engg	3-1-2	5
CE-302	Structural Analysis –II	3-1-0	4
CE-303	Transportation Engg –I	3-1-2	5
CE-304	Design of Concrete Structures – I	3-1-0	4
CE-305	Environmental Engg –I	3-0-2	4
CE-306	Quantity Surveying & Estimation	3-0-0	3
CE-321	Mini Project-V	0-0-2	1
CE-307	Design of Concrete Structures – II	3-1-0	4
CE-308	Transportation Engg – II	3-1-0	4
CE-309	Environmental Engg – II	3-0-2	4
CE-361	Advanced Foundation Design	3-1-2	5
CE-323	Survey Camp	0-0-2	1
CE-322	Mini Project-VI	0-0-2	1
CE-401	Design of Steel Structures	3-1-0	4
CE-473	Irrigation Engineering	3-1-0	4
CE-478	Engineering Hydrology	3-1-0	4
CE-421	Major Project –I	0-0-4	2
CE-423	Summer Internship	0-0-0	1
CE-422	Major Project-II	0-0-8	4
	Total BS Core		105

B.Tech. (Civil Engineering)**SCHEME OF EXAMINATION****First Year – 1st Semester**

Subject Code	Subject Name	Scheme of Teaching				
		L	T	P	Hours	Credit
MA-101	Engineering Mathematics-I	3	1	0	4	4
CS-101	Computer Concepts & C-programming	2	1	2	5	4
PH-101	Applied Physics	3	0	2	5	4
HU-101	Professional Communication-I	2	1	2	5	4
CE-101	Environment and Ecology	2	1	0	3	3
ME-102	Engineering Graphics	1	1	2	4	3
CE-121	Mini Project-I	0	0	2	2	1
	Total	13	5	10	28	23

First Year – 2nd Semester

Subject Code	Subject Name	Scheme of Teaching				
		L	T	P	Hours	Credit
MA-102	Engineering Mathematics-II	3	1	0	4	4
CH-101	Applied Chemistry	3	0	2	5	4
EC-101	Basic Electrical & Electronics Engineering	2	1	2	5	4
ME-103	Engineering Mechanics	3	1	0	4	4
HU-102	Professional communication-II	2	0	2	4	3
ME-104	Engineering Workshop	0	0	2	2	1
CE-122	Mini Project-II	0	0	2	2	1
	Total	13	4	10	26	21

Second Year- 3rd Semester

Subject Code	Subject Name	Scheme of Teaching				
		L	T	P	Hours	Credit
MA-201	Mathematics - III	3	1	0	4	4
CE-201	Fluid Mechanics	3	1	2	6	5
CE-202	Strength of Material	3	1	2	6	5
CE-203	Surveying	3	0	2	5	4
HU-201	Human Values and Professional Ethics	3	0	0	3	3
CE-204P	Building planning & Drawing (Auto CAD) Lab	0	0	2	2	1
CE-221	Mini Project-III	0	0	2	2	1
	Total	15	3	10	28	23

Second Year- 4th Semester

Subject Code	Subject Name	Scheme of Teaching				
		L	T	P	Hours	Credit
CE-205	Engineering Geology	3	0	0	3	3
CE-206	Structural Analysis -I	3	1	2	6	5
CE-207	Geoinformatics	3	0	2	5	4
CE-208	Hydraulics & Hydraulic Machines	3	1	2	6	5
CE-209	Building Material & Construction	3	0	2	5	4
CE-210	Concrete Technology	3	0	0	3	3
CE-222	Mini Project-IV	0	0	2	2	1
	Total	18	2	10	30	25

Third Year- 5th Semester

Subject Code	Subject Name	Scheme of Teaching				
		L	T	P	Hours	Credit
CE-301	Geotechnical Engineering	3	1	2	6	5
CE-302	Structural Analysis -II	3	1	0	4	4
CE-303	Transportation Engineering -I	3	1	2	6	5
CE-304	Design of Concrete Structures - I	3	1	0	4	4
CE-305	Environmental Engineering -I	3	0	2	5	4
CE-306	Quantity Surveying & Estimation	3	0	0	0	3
CE-321	Mini Project-V	0	0	2	2	1
	Total	18	4	8	27	26

Third Year- 6th Semester

Subject Code	Subject Name	Scheme of Teaching				
		L	T	P	Hours	Credit
CE-307	Design of Concrete Structures - II	3	1	0	4	4
CE-308	Transportation Engineering -II	3	1	0	4	4
CE-309	Environmental Engineering -II	3	0	2	5	4
CE 361	Advanced Foundation Design	3	1	2	6	5
CE-370	Construction Technology and Management	3	0	0	3	3
CE-323	Survey Camp*	0	0	2	2	1
CE-322	Mini Project-VI	0	0	2	2	1
	Total	17	5	4	26	22

* - This will be done during break for one week (or min. 15 hrs) with the help of total station and differential GPS

Fourth Year- 7th Semester

Subject Code	Subject Name	Scheme of Teaching				
		L	T	P	Hours	Credit
CE-401	Design of Steel Structures	3	1	0	4	4
CE-	(Elective)-I	3	0	0	3	3
CE-	(Elective)-II	3	0	0	3	3
CE-473	Irrigation Engineering	3	1	0	4	4
CE-421	Major Project-I	0	0	4	4	2
CE-423	Summer Internship*	0	0	0	0	1
	Total	12	2	4	18	17

* - This will be done during summer break for duration of six week in various civil engineering Industries/Sites

Fourth Year- 8th Semester

Subject Code	Subject Name	Scheme of Teaching				
		L	T	P	Hours	Credit
CE-422	Major Project-II	0	0	8	8	4
CE 478	Engineering Hydrology	3	1	0	4	4
CE	(Elective)-III	3	0		3	3
CE	(Elective)-IV	3	0		3	3
	Total	9	1	8	20	14

Departmental Elective Subjects

Subject Code	Subject Name	L-T-P	Credit
CE 362	Advanced Concrete Technology	3-0-0	3
CE 363	Industrial Pollution Control & Env. Audit	3-0-0	3
CE 364	Rural Water Supply and Sanitation	3-0-0	3
CE 365	Finite Element Methods	3-0-0	3
CE 366	Earth and Earth Retaining Structures	3-0-0	3
CE 367	Matrix Analysis of Structures	3-0-0	3
CE 368	Bridge Engineering	3-0-0	3
CE 369	Project Management	3-0-0	3
CE-370	Construction Technology and Management	3-0-0	3
CE 471	Urban and Regional Transportation Planning	3-0-0	3
CE 472	EIA and Auditing	3-0-0	3
CE 476	Open Channel Flow	3-0-0	3
CE 474	Tunnel Engineering	3-0-0	3
CE 475	Machine Foundation Design	3-0-0	3
CE 477	Earthquake Resistant Design of Structures	3-0-0	3
CE 481	Plastic Analysis of Structures	3-0-0	3
CE 482	Ground Improvement Techniques	3-0-0	3
CE 483	Analysis and Design of Hydraulic Structures	3-0-0	3
CE 484	Groundwater Management	3-0-0	3
CE 485	Pre-stressed Concrete Design of Structures	3-0-0	3
CE 486	Rehabilitation of Structures	3-0-0	3
CE 487	Smart Structures	3-0-0	3