

1.3.2 Value Added Courses
Department of Civil Engineering
Index

S.No.	Name of the value-added courses offered	Page No.
1	CC & EC Activities -I	2,4
2	CC & EC Activities -II	2,4

Department of Civil Engineering

Minimum Credits to be earned: 160 (for Regular students)

127 (for Lateral Entry Students)

Fifth Semester							
1	20CE501	Design and Detailing of RC Structures	3, 10, 12,PSO2	3	-	2	4
2	20CE502	Environmental Engineering	3, 6, 7, 12	3	1	-	3
3	20CE503	Foundation Engineering	2, 3, 8, 12,PSO2	3	1	-	3
4	20CE504	Hydrology	2, 3, 12	3	-	2	4
5		Elective I (Professional Elective)		3	1	-	3
6		Elective II (Open Elective I)		3	1	-	3
7	20CE505	Environmental Engineering Laboratory	3, 6, 7, 12	-	-	3	1.5
8	20TPX01	Term Paper	1,4,10,12	-	-	3	1.5
9	20ESX02	Employability Skills II	1,2,5,8,10, 12	1	1	1	-
10	20HSX12	CC & EC Activities II	6,7,9,10	-	-	1	-
11	20SIX01	Summer Internship I	1,2,8,10, 12	-	-	-	1.5
Total				19	5	12	24.5
Sixth Semester							
1	20CE601	Problem solving using OOPS	1, 5, 12	3	1	-	3
2	20CE602	Design of Steel Structures	3, 5, 10, 12,PSO2	3	1	-	3
3	20CE603	Estimation and costing	1,12	3	1	-	3
4		Elective III (Professional Elective)		3	-	2	4
5		Elective IV (Open Elective II)		3	1	-	3
6	20CE604	Programming Language Laboratory	1,2,3,5	-	-	3	1.5
7	20MPX01	Mini Project	1,2,3,4,5,6, 7,8,9,10, 11,12,PSO1 ,PSO2	-	-	3	1.5
8	20ESX02	Employability Skills II	1,2,5,8,10, 12	1	1	1	3
9	20HSX12	CC & EC Activities II	6,7,9,10	-	-	1	1
10		Audit Course	12	-	-	-	-
Total				16	5	10	23
Elective I							
Career Path I, II, III and Other Core Electives							
1	20CEC11	Principles of Building Architecture	1,3,PSO1, PSO2	3	1	-	3
2	20CEC21	Geometric Design and Highway Materials	1,3,PSO2	3	1	-	3
3	20CEC31	Prefabricated Structures	3, PSO2	3	1	-	3
4	20CE004	Construction Techniques	4,5,11, PSO2	3	1	-	3
5	20CE005	Airport, Railways and Harbour Engineering	1,3,12	3	1	-	3
6	20CE006	Construction Economics and Finance	3,10,11	3	1	-	3
		MOOCs		-	-	-	3
Elective II: Open Elective I							
1	20CE001	Disaster Management	2,7	3	1	-	3
2	20EE001	Electrical Installation, Safety and Auditing	2,3,6,8	3	1	-	3
3	20ME001	Fundamentals of Optimization Techniques	1,2	3	1	-	3
4	20EC001	Sensors for Engineering Applications	1	3	1	-	3
5	20CS001	Fundamentals of Artificial Intelligence	1,2,3	3	1	-	3

6	20CH001	Energy Conversion and Storage Devices	1,3,6,7	3	1	-	3
7	20IT001	Fundamentals of Multimedia	1,5,7	3	1	-	3
8	20BS001	Nano Materials and Technology	1,12	3	1	-	3
Elective III							
Career Path I, II, III and Other Core Electives							
1	20CEC12	Building Services	3,7,12 PS02	3	-	2	4
2	20CEC22	Highway Design and Simulation	1,3,PS02	3	-	2	4
3	20CEC32	Pre Engineered Buildings	3,11	3	-	2	4
4	20CE007	AI for Civil Engineering	1, 5, 12	3	-	2	4
5	20CE008	Engineering Geology	1,2,4, PS01	3	-	2	4
6	20CE009	Irrigation and Water Resources Engineering	3, 5, 10, 12	3	-	2	4
Elective IV: Open Elective II							
1	20CE002	Air Pollution and Environmental Impact Assessment	6,7,12	3	1	-	3
2	20EE002	Renewable Energy Sources	2,7	3	1	-	3
3	20ME002	Principles of Entrepreneurship	1,11	3	1	-	3
4	20EC002	Electronics for Agriculture	1,2	3	1	-	3
5	20CS002	Fundamentals of Machine Learning	2,3	3	1	-	3
6	20CH002	Industrial Safety and Hazard Management	1,2,3,6,8	3	1	-	3
7	20IT002	Fundamentals of Cloud Computing	1,7	3	1	-	3
8	20BS002	Advanced Numerical Techniques	1,2	3	1	-	3
9	20BS003	Functional Materials and Applications	1,7	3	1	-	3
Audit Course							
1	20AT001	Communication Etiquette in Workplaces	-	-	-	-	-
2	20AT002	Contemporary India: Economy, Policy and Society	-	-	-	-	-
3	20AT003	Design The Thinking	-	-	-	-	-
4	20AT004	Ethics and Integrity	-	-	-	-	-
5	20AT005	Indian Heritage and Culture	-	-	-	-	-
6	20AT006	Human Values and Professional Ethics	-	-	-	-	-
7	20AT007	Intellectual Property Rights and Patents	-	-	-	-	-
8	20AT008	Introduction to Journalism	-	-	-	-	-
9	20AT009	Mass Media Communication	-	-	-	-	-
10	20AT010	Science, Technology and Development	-	-	-	-	-
11	20AT011	Social Responsibility	-	-	-	-	-
12	20AT012	The Art of Photography and Film Making	-	-	-	-	-
13	20AT013	Gender Equality for Sustainability	-	-	-	-	-
14	20AT014	Women in Leadership	-	-	-	-	-
15	20AT015	Introduction to Research Methodology	-	-	-	-	-
16	20AT016	Climate Change and Circular Economy	-	-	-	-	-

Department of Civil Engineering

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123 (for Lateral Entry Students)

Third Semester							
1	21MA303	Numerical Methods	1, 12	3	-	-	3
2	21CE302	Building Materials and Concrete Technology	2,4,8, 12, PSO1	3	-	2	4
3	21CE303	Building Planning and Drawing	5, 10, 12	3	-	2	4
4	21CE304	Fluid Mechanics	1, 12	3	-	-	3
5	21CE305	Solid Mechanics I	1, 12	3	-	-	3
6	21CE306	Surveying	1, 2, 10, 12	3	-	-	3
7	21CE307	Solid Mechanics Laboratory	1, 4	-	-	3	1.5
8	21CE308	Surveying Laboratory	1, 4	-	-	3	1.5
9	21BEA01	Environmental Studies	1,6,7,12	-	-	-	-
10	21ESX01	Employability Skills I	1,2,5,8,10, 12	1	-	1	-
11	21HSX11	CC & EC Activities I	6,7,9,10	-	-	1	-
Total				19	-	12	23
Fourth Semester							
1	21CE401	Hydraulics and Hydraulic Machinery	1, 12	3	-	-	3
2	21CE402	Soil Mechanics	1, 2, 12, PSO1	3	-	-	3
3	21CE403	Solid Mechanics II	1, 12	3	-	-	3
4	21CE404	Structural Analysis	1, 12	3	-	-	3
5	21CE405	Transportation Engineering	3, 12, PSO2	3	-	2	4
6	21CE406	Fluid Mechanics and Hydraulic Machinery Laboratory	1, 4	-	-	3	1.5
7	21CE407	Soil Mechanics Laboratory	1, 4	-	-	3	1.5
8	21ESX01	Employability Skills I	1,2,5,8,10, 12	1	-	1	2
9	21HSX11	CC & EC Activities I	6,7,9,10	-	-	1	1
Total				16	-	10	22