

B.E.-Civil Engineering
Total Credits to be earned for the award of the Degree: **186/143** (for lateral entry)
Full Time Curriculum

SEMESTER I										
Course Code	Course Name	L	T	P	C	Maximum Marks			Category	
						CIA	ES	Total		
Theory Course										
1701MA101	Engineering Mathematics I	3	2	0	4	40	60	100	BS	
1701PH101	Applied Physics for Engineers	3	0	0	3	40	60	100	BS	
1701CH103	Water Technology & Green Chemistry	3	0	0	3	40	60	100	BS	
1701EN101	Technical English	3	0	0	3	40	60	100	HS	
1701GE104	Fundamentals of Mechanical Engineering	2	0	2	3	50	50	100	ES	
1701GEX04	Engineering Mechanics	2	2	0	3	40	60	100	ES	
Laboratory Course										
1701GEX53	Workshop Practice	0	0	2	1	50	50	100	ES	
1701HS151	Physics and Chemistry Lab - I	0	0	2	1	50	50	100	BS	
Total		16	04	06	21	350	450	800	-	

SEMESTER II										
Course Code	Course Name	L	T	P	C	Maximum Marks			Category	
						CIA	ES	Total		
Theory Course										
1701MA201	Engineering Mathematics - II	3	2	0	4	40	60	100	BS	
1701PH204	Material Science	3	0	0	3	40	60	100	BS	
1701CH201	Environmental Studies	3	0	0	3	40	60	100	BS	
1701LE202	Language Elective	3	0	0	3	100	00	100	HS	
1701GEX01	Basic Electrical and Electronics Engineering	3	0	0	3	40	60	100	ES	
1701GEX03	Programming in C	3	0	0	3	40	60	100	ES	
1701GEX02	Engineering Graphics	2	2	0	3	50	50	100	ES	
Laboratory Course										
1701HS251	Physics and Chemistry Lab - II	0	0	2	1	50	50	100	BS	
1701GEX52	Communication Skill Lab	0	0	2	1	50	50	100	HS	
1701GEX51	Programming in C Lab	0	0	2	1	50	50	100	ES	
Total		20	06	6	25	500	500	1000	-	

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SEMESTER III									
Course Code	Course Name	L	T	P	C	Maximum Marks			Category
						CIA	ES	Total	
Theory Course									
1701MA301	Engineering Mathematics - III	3	2	0	4	40	60	100	BS
1702CE301	Engineering Surveying- I	3	0	0	3	40	60	100	PC
1702CE302	Solid Mechanics I	3	0	0	3	40	60	100	PC
1702CE303	Fluid Mechanics	3	0	0	3	40	60	100	PC
1702CE304	Engineering Geology	3	0	0	3	40	60	100	PC
1702CE305	Building Materials and Management	3	0	0	3	40	60	100	PC
Laboratory Course									
1702CE351	Surveying Lab I	0	0	4	2	50	50	100	PC
1702CE352	Strength of Materials Lab	0	0	2	1	50	50	100	PC
1704CE353	Technical Seminar - I	0	0	2	1	50	50	100	EEC
1704GE351	Life Skills: Soft skills	0	0	2	1	100	0	100	EEC
Total		18	2	10	24	490	510	1000	-

SEMESTER IV									
Course Code	Course Name	L	T	P	C	Maximum Marks			Category
						CIA	ES	Total	
Theory Course									
1701MA403	Numerical Methods and Statistics	3	2	0	4	40	60	100	BS
1702CE401	Engineering Surveying II	3	0	0	3	40	60	100	PC
1702CE402	Solid Mechanics II	3	0	0	3	40	60	100	PC
1702CE403	Applied Hydraulic Engineering	3	0	0	3	40	60	100	PC
1702CE404	Geotechnical Engineering-I	3	0	0	3	40	60	100	PC
1702CE405	Transportation Engineering	3	0	0	3	40	60	100	PC
1701CH201	Environmental Studies *	3	0	0	3	40	60	100	BS
Laboratory Course									
1702CE451	Hydraulic Engineering Lab	0	0	2	1	50	50	100	PC
1702CE452	Geotechnical Engineering Lab	0	0	2	1	50	50	100	PC
1702CE453	Surveying Lab II	0	0	2	1	50	50	100	PC
1704CE454	Technical Seminar - II	0	0	2	1	50	50	100	EEC
1704GE451	Life Skills: Verbal Ability	0	0	2	1	100	0	100	EEC
Total (regular)		18	2	10	24	540	560	1100	-
Total (lateral entry)		21	2	10	27	580	620	1200	-

*For lateral entries only

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SEMESTER V									
Course Code	Course Name	L	T	P	C	Maximum Marks			Category
						CIA	ES	Total	
Theory Course									
1702CE501	Structural Analysis I	3	2	0	4	40	60	100	PC
1702CE502	Concrete Structures I	3	0	0	3	40	60	100	PC
1702CE503	Concrete Technology	3	0	0	3	40	60	100	HS
1702CE504	Geotechnical Engineering II	3	0	0	3	40	60	100	PC
1703CE001	Remote Sensing and GIS (Elective I)	3	0	0	3	40	60	100	PE
1703CE006	Solid Waste Management (Elective II)	3	0	0	3	40	60	100	PE
Laboratory Course									
1702CE551	Computer Aided Building and Drawing Lab	0	0	4	2	40	60	100	PC
1702CE552	Survey Camp*	0	0	0	1	100	0	100	PC
1704CE553	Mini Project I	0	0	2	1	100	0	100	PC
1704GE551	Life Skills: Aptitude - I	0	0	2	1	100	0	100	EEC
Total		18	4	08	24	580	420	1000	-

SEMESTER VI									
Course Code	Course Name	L	T	P	C	Maximum Marks			Category
						CIA	ES	Total	
Theory Course									
1702CE601	Structural Analysis II	3	2	0	4	40	60	100	PC
1702CE602	Concrete Structures II	3	0	0	3	40	60	100	PC
1702CE603	Design Of Steel Structures	3	0	0	3	40	60	100	PC
1702CE604	Water Supply Engineering	3	0	0	3	40	60	100	PC
1703CE009	Ground Water Engineering (Elective III)	3	0	0	3	40	60	100	PE
	Elective IV (Open)	3	0	0	3	40	60	100	PE
Laboratory Course									
1702CE651	Concrete And Highway Engineering Lab	0	0	2	1	50	50	100	PC
1702CE652	Environmental And Irrigation Design and Drawing	0	0	4	2	50	50	100	PC
1704GE651	Life Skills: Aptitude - II	0	0	2	1	100	0	100	EEC
1702CE653	Mini Project II	0	0	2	1	100	0	100	PC
1702CE654	Industrial Visit / Presentation	0	0	0	1	-	-	--	-
Total		18	2	10	25	540	460	1000	

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SEMESTER VII									
Course Code	Course Name	L	T	P	C	Maximum Marks			Category
						CIA	ES	Total	
Theory Course									
1702CE701	Quantity Surveying & Cost Estimation	3	0	0	3	40	60	100	PC
1702CE702	Waste Water Engineering	3	0	0	3	40	60	100	PC
1702CE703	Structural Dynamics and Earth Quake Engineering	3	0	0	3	40	60	100	PC
1701MGX01	Professional Ethics	3	0	0	3	40	60	100	HS
1703CE015	Pre-Stressed Concrete (Elective V)	3	0	0	3	40	60	100	PE
	Elective VI (Open)	3	0	0	3	40	60	100	PE
Laboratory Course									
1702CE751	Computer Aided Design and Drafting Lab	0	0	4	2	50	50	100	PC
1702CE752	Water And Waste Water Engineering Lab	0	0	2	1	50	50	100	PC
1702CE753	Mini Project III	0	0	2	1	100	0	100	PC
1704GE751	Competitive exams Preparation	2	0	0	2	100	0	100	EEC
1702CE754	In plant Training / Internship Presentation	0	0	0	1	-	-	-	-
Total		21	0	10	25	540	460	1000	-

SEMESTER VIII									
Course Code	Course Name	L	T	P	C	Maximum Marks			Category
						CIA	ES	Total	
Theory Course									
1703CE019	Storage And Industrial Structures (Elective VII)	3	0	0	3	40	60	100	PE
1703CE021	Repair And Rehabilitation of Structures (Elective VIII)	3	0	0	3	40	60	100	PE
1703CE025	Traffic Engineering and Management (Elective IX)	3	0	0	3	40	60	100	PE
Laboratory Course									
1702CE851	Project	0	0	18	9	50	50	100	PC
Total		09	0	18	18	170	230	400	-

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List of Programme Electives for B.E – Civil Engineering

LIST OF ELECTIVES

ELECTIVE I

Course Code	Course Name	L	T	P	C	Max. Marks 100		
						CA	SE	TOT
1703CE001	Remote Sensing And GIS	3	-	-	3	40	60	100
1703CE002	Ground Improvement Techniques	3	-	-	3	40	60	100
1703CE003	Soil Dynamics And Machine Foundation	3	-	-	3	40	60	100
1703CE004	Advanced Geotechnical Engineering	3	-	-	3	40	60	100

ELECTIVE II

Course Code	Course Name	L	T	P	C	Max. Marks 100		
						CA	SE	TOT
1703CE005	Industrial Pollution Prevention and Cleaner Production	3	-	-	3	40	60	100
1703CE006	Solid Waste Management	3	-	-	3	40	60	100
1703CE007	Environmental Impact Assessment	3	-	-	3	40	60	100
1703CE008	Air Pollution Control and Management	3	-	-	3	40	60	100

ELECTIVE III

Course Code	Course Name	L	T	P	C	Max. Marks 100		
						CA	SE	TOT
1703CE009	Ground Water Engineering	3	-	-	3	40	60	100
1703CE010	Coastal Zone Management	3	-	-	3	40	60	100
1703CE011	Noise Pollution and Its Control	3	-	-	3	40	60	100
1703CE012	Advanced Waste Water Treatment Design	3	-	-	3	40	60	100

ELECTIVE V

Course Code	Course Name	L	T	P	C	Max. Marks 100		
						CA	SE	TOT
1703CE013	Bridge Engineering	3	-	-	3	40	60	100
1703CE014	Finite Element Methods	3	-	-	3	40	60	100
1703CE015	Pre-Stressed Concrete	3	-	-	3	40	60	100
1703CE016	Advanced Structural Analysis	3	-	-	3	40	60	100


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ELECTIVE VII

Course Code	Course Name	L	T	P	C	Max. Marks 100		
						CA	SE	TOT
1703CE017	Design Of Advanced Concrete Structures	3	-	-	3	40	60	100
1703CE018	Computer Analysis of Structures	3	-	-	3	40	60	100
1703CE019	Storage And Industrial Structures	3	-	-	3	40	60	100
1703CE020	Advanced Design and Construction of Pavements	3	-	-	3	40	60	100

ELECTIVE VIII

Course Code	Course Name	L	T	P	C	Max. Marks 100		
						CA	SE	TOT
1703CE021	Repair And Rehabilitation of Structures	3	-	-	3	40	60	100
1703CE022	Tall Structures	3	-	-	3	40	60	100
1703CE023	Contract Law and Regulations	3	-	-	3	40	60	100
1703CE024	Pre-Fabricated Structures	3	-	-	3	40	60	100

ELECTIVE IX

Course Code	Course Name	L	T	P	C	Max. Marks 100		
						CA	SE	TOT
1703CE025	Traffic Engineering and Management	3	-	-	3	40	60	100
1703CE026	Construction Project Management	3	-	-	3	40	60	100
1703CE027	Architecture And Town Planning	3	-	-	3	40	60	100
1703CE028	Natural Disaster Mitigation and Management	3	-	-	3	40	60	100


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Open Electives

s. No.	Course Code	Name of the Course	Number of Hours / Week			Credit
			L	T	P	
THEORY						
1.	1903CE031	Natural Disaster and Mitigation Management	3	-	-	3
2.	1903CE032	Global Warming and Climate Change	3	-	-	3
3.	1903CE033	Water Pollution and Its Management	3	-	-	3
4.	1903CE034	Energy Engineering Technology and Management	3	-	-	3
5.	1903CE035	Renewable Sources of Energy	3	-	-	3
6.	1903CE036	Global Position System (GPS)	3	-	-	3
7.	1903CE037	Soil Chemistry and Its Impact	3	-	-	3
8.	1903CE038	Introduction to Transport Processes	3	-	-	3


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M.E.-Environmental Engineering
Total Credits to be earned for the award of the Degree: 70
Full Time Curriculum and Syllabus

SEMESTER I									
Course Code	Course Name	L	T	P	C	Maximum Marks			Category
						CIA	ES	Total	
Theory Course									
17EV101	Statistics For Environmental Engineers	3	2	0	4	40	60	100	FC
17EV102	Environmental Chemistry	3	0	0	3	40	60	100	PC
17EV103	Environmental Microbiology	3	0	0	3	40	60	100	PC
17EV104	Transport of Water and Waste Water	3	0	0	3	40	60	100	PC
17EV105	Principles and Design of Physico-Chemical Treatment Systems	3	0	0	3	40	60	100	PC
	Elective-I	3	0	0	3	40	60	100	PE
Laboratory Course									
17EV106	Environmental Chemistry Laboratory	0	0	2	1	50	50	100	EEC
17EV107	Environmental Microbiology Laboratory	0	0	2	1	50	50	100	EEC
17EV108	Communication Skills Lab I	0	0	2	1	100	0	100	EEC
	Total	18	2	6	22	440	460	900	

SEMESTER II									
Course Code	Course Name	L	T	P	C	Maximum Marks			Category
						CIA	ES	Total	
Theory Course									
17EV201	Principles and Design of Biological Treatment Systems	3	0	0	3	40	60	100	FC
17EV202	Air Pollution Monitoring and Control	3	0	0	3	40	60	100	PC
17EV203	Industrial Waste Management	3	0	0	3	40	60	100	PC
17EV204	Solid and Hazardous Waste Management	3	0	0	3	40	60	100	PC
17EV205	Environmental Impact Assessment	3	0	0	3	40	60	100	PC
	Elective II	3	0	0	3	40	60	100	PE
Laboratory Course									
17EV206	Unit Operations and Processes Laboratory	0	0	2	1	50	50	100	EEC
17EV207	Communication Skills Lab II	0	0	2	1	100	0	100	EEC
17EV208	Technical Seminar	0	0	2	1	50	50	100	EEC
	Total	18	0	6	21	440	460	900	

SEMESTER III									
Course Code	Course Name	L	T	P	C	Maximum Marks			Category
						CIA	ES	Total	
	Elective III	3	0	0	3	40	60	100	PE
	Elective IV	3	0	0	3	40	60	100	PE
	Elective V (Open)	3	0	0	3	40	60	100	OE
17EV301	Project Work (Phase I)	0	0	12	6	50	50	100	EEC
	Total	9	0	12	15	170	230	400	

SEMESTER IV									
Course Code	Course Name	L	T	P	C	Maximum Marks			Category
						CIA	ES	Total	
17EV401	Project Work (Phase II)	0	0	24	12	50	50	100	EEC
	Total	0	0	24	12	50	50	100	


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List of Programme Electives for M.E – Environmental Engineering

Course Code	Course Name	L	T	P	C	Maximum Marks			Category
						CIA	ES	Total	
17EV001	Air Pollution Meterology and Modeling	3	-	-	3	40	60	100	PE
17EV002	Climate Change and Modeling	3	-	-	3	40	60	100	PE
17EV003	Computing Techniques in Environmental Engineering	3	-	-	3	40	60	100	PE
17EV004	Environmental Biotechnology	3	-	-	3	40	60	100	PE
17EV005	Environmental Policies and Legislation	3	-	-	3	40	60	100	PE
17EV006	Environmental System Analysis	3	-	-	3	40	60	100	PE
17EV007	Land Fill Engineering and Remediation Technology	3	-	-	3	40	60	100	PE
17EV008	Membrane Technologies for Water and Waste Water Treatment	3	-	-	3	40	60	100	PE
17EV009	Remote Sensing and GIS Applications in Environmental Management	3	-	-	3	40	60	100	PE
17EV010	Resource and Energy Recovery from Waste	3	-	-	3	40	60	100	PE
17EV011	Water Quality Modeling	3	-	-	3	40	60	100	PE
17EV012	Noise Pollution and Control Engineering	3	-	-	3	40	60	100	PE
17EV013	Operation and Maintenance of ETP Plants	3	-	-	3	40	60	100	PE
17EV014	Marine Pollution and Control	3	-	-	3	40	60	100	PE
17EV015	Environment, Health and Safety for Industries	3	-	-	3	40	60	100	PE

List of Open Electives Offered by the Department of Civil Engineering

Course Code	Course Name	L	T	P	C	Maximum Marks			Category
						CIA	ES	Total	
17EV020	Research Methodology	3	-	-	3	40	60	100	OE
17PE021	Environmental Sociology	3	-	-	3	40	60	100	OE
17EV022	Environmental Instrumentation	3	-	-	3	40	60	100	OE
17EV023	Cleaner Production and Environmental Management	3	-	-	3	40	60	100	OE


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