Dual Degree (B.Tech & M.Tech) Curriculum
Environmental and Water Resources Engineering
For B.Tech 2017 Batch

Semester - I

S.No	Course No	Course Name	Category	L-T-P-C
1.	CS1100	Computational Engineering	BET	2-0-3-4
2.	CY1010	Chemistry-I (Physical and Theoretical)	SCY	2-1-0-3
3.	ID1100	Concepts in Engineering and Design	BET	3-0-0-3
4.	MA1010	Mathematics-I	SMA	3-1-0-4
5.	ME1120	Engineering Drawing	BES	1-0-3-3
6.	PH1010	Physics-I	SPH	2-1-0-3
7.	PH1030	Physics Laboratory	SPH	0-0-3-2
8.	WS1010	Workshop-I	BES	0-0-3-2
			Total	**24**

Semester - II

S.No	Course No	Course Name	Category	L-T-P-C
1.	AM1100	Engineering Mechanics	BET	3-1-0-4
2.	CY1020	Chemistry-II (Organic and Inorganic)	SCY	2-1-0-3
3.	CY1030	Chemistry Laboratory	SCY	0-0-3-2
4.	GN1100	Life skills	BES	2-0-0-2
5.	ID1200	Ecology and Environment	BET	2-0-0-2
6.	MA1020	Mathematics-II	SMA	3-1-0-4
7.	ME1100	Thermodynamics	BET	2-1-0-3
8.	PH1020	Physics-II	SPH	2-1-0-3
9.	WS1020	Workshop-II	BES	0-0-3-2
			Total	**25**

Semester - III

S.No	Course No	Course Name	Category	L-T-P-C
1.	AM2200	Strength of Materials	PMT	3-1-0-4
2.	CE1020	Functional Design of Buildings	PMT	2-0-0-2
3.	CE2050	Building Drawing	PML	0-0-3-2
4.	CE2330	Civil Engineering Materials and Construction	PMT	4-0-0-4
5.	EE1100	Basic Electrical Engineering	BET	3-0-0-3
6.	BT1010	Life Sciences	SLS	2-0-0-2
7.	MAE1	Mathematics Elective-1	SMA	3-0-0-3
8.	HSE1	Humanities Elective-1	HSS	3-0-0-3
			Total	**23**

Semester - IV

S.No	Course No	Course Name	Category	L-T-P-C
1.	CE2020	Structural Analysis	PMT	3-1-0-4
2.	CE2040	Hydraulic Engineering	PMT	3-1-0-4
3.	CE2060	Geology and Soil Mechanics	PMT	3-1-0-4
4.	CE2080	Surveying	PMT	3-1-0-4
5.	CE2100	Surveying Practical	PML	0-0-3-2
6.	MAE2	Mathematics Elective-2	SMA	3-0-0-3
7.	HSE2	Humanities Elective-2	HSS	3-0-0-3
			Total	**24**

Semester - V

S.No	Course No	Course Name	Category	L-T-P-C
1.	CE3010	Transportation Engineering-I	PMT	3-0-0-3
2.	CE3030	Water Resources Engineering	PMT	3-1-0-4
3.	CE3050	Basic Structural Steel Design	PMT	3-1-0-4
4.	CE3350	Geotechnical Engineering	PMT	3-1-0-4
5.	CE3410	Construction Materials Laboratory	PML	0-0-3-2
6.	FRE1	Free Elective-1	FRE	3-0-0-3
			Total	20

Semester - VI

S.No	Course No	Course Name	Category	L-T-P-C
1.	CE3020	Transportation Engineering-II	PMT	3-0-0-3
2.	CE3040	Environmental Engineering	PMT	3-1-0-4
3.	CE3060	Basic Reinforced Concrete Design	PMT	3-1-0-4
4.	DPE1	Department Elective-1	PMT	3-0-0-3
5.	CE3100	Structural Engineering Laboratory	PML	0-0-3-2
6.	CE4030	Hydraulic and Environmental Engineering Laboratory	PML	0-0-3-2
7.	FRE2	Free Elective-2	FRE	3-0-0-3
8.	CE3280	Industrial/Research Training	PIT	0-0-0-2
			Total	23

Semester - VII

S.No	Course No	Course Name	Category	L-T-P-C
1.	CE4010	Estimation and Construction Management	PMT	3-1-0-4
2.	CE5105	Air Pollution Control Engineering	PMT	3-0-0-3
3.	CE5107	Surface Water Hydrology	PMT	3-0-0-3
4.	DPE2	Department Elective-2	PMT	3-0-0-3
5.	DPE3	Department Elective-3	PMT	3-0-0-3
6.	HSE3	Humanities Elective-3	HSS	3-0-0-3
7.	CE4020	Industrial Lecture	PIL	1-0-0-1
			Total	20

Semester - VIII

S.No	Course No	Course Name	Category	L-T-P-C
1.	CE5202	Biological Processes in Wastewater Engineering	PMT	3-0-0-3
2.	CE5025	Water Resources Planning and Management	PMT	3-0-0-3
3.	DPE4	Department Elective-4	PMT	3-0-0-3
4.	CE5291	Environmental Monitoring Laboratory	PML	0-0-3-2
5.	CE5191	Hydroinformatics Laboratory	PML	0-0-3-2
6.	FRE3	Free Elective-3	FRE	3-0-0-3
7.	FRE4	Free Elective-4	FRE	3-0-0-3
8.	HS4202	Professional Ethics	HPE	2-0-0-2
			Total	21

Semester – IX

S.No	Course No	Course Name	Category	L-T-P-C
1.	CE6110	Seminar	PMT	- - -1
2.	FRE5	Free Elective-5	FRE	3-0-0-3
3.	CE6150	Project Phase-I	PMP	- - -10
			Total	**14**

Semester – X

S.No	Course No	Course Name	Category	L-T-P-C
1.	CE6250	Project Phase-II	PMP	- - -15
			Total	**15**

Total - 209

Department Electives

1) CE5021 Groundwater Hydrology

2) CE5023 Integrated Impact Assessment

3) CE5024 Solid and Hazardous Waste Management

4) CE5026 GIS and Remote Sensing

5) CE5104 Physicochemical Processes in Water and Wastewater Engineering

6) HS7105 Advanced Environmental and Resource Economics

7) ME5204 Finite Element Methods in Engineering Mechanics

8) CE5111 Environmental Chemistry

9) CE5031 Environmental Risk Assessment

10) ME5101 Computational Fluid Dynamics