

Dual Degree (B.Tech & M.Tech) Curriculum
Geotechnical 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.	CE5112	Advanced Soil Mechanics	PMT	3-0-0-3
3.	DPE2	Department Elective-2	PMT	3-0-0-3
4.	DPE3	Department Elective-3	PMT	3-0-0-3
5.	HSE3	Humanities Elective-3	HSS	3-0-0-3
6.	CE5114	Advanced Soil Mechanics Laboratory	PML	0-0-3-2
7.	MAE3	Mathematics Elective-3	SMA	2-0-0-2
8.	CE4020	Industrial Lecture	PIL	1-0-0-1
Total				21

Semester - VIII

S.No	Course No	Course Name	Category	L-T-P-C
1.	CE5206	Ground Improvement and Geosynthetics	PMT	3-0-0-3
2.	CE5211	Soil Dynamics and Geotechnical Earthquake Engineering	PMT	3-0-0-3
3.	DPE4	Department Elective-4	PMT	3-0-0-3
4.	DPE5	Department Elective-5	PMT	3-0-0-3
5.	FRE3	Free Elective-3	FRE	3-0-0-3
6.	CE5208	Ground Improvement and Geosynthetics Laboratory	PML	0-0-3-2
7.	HS4202	Professional Ethics	HPE	2-0-0-2
Total				19

Semester – IX

S.No	Course No	Course Name	Category	L-T-P-C
1.	CE6111	Seminar	PMT	- - -1
2.	CE6151	Project Phase-I	PMP	- - -10
3.	FRE4	Free Elective-4	FRE	3-0-0-3
4.	FRE5	Free Elective-5	FRE	3-0-0-3
Total				17

Semester – X

S.No	Course No	Course Name	Category	L-T-P-C
1.	CE6251	Project Phase-II	PMP	- - -15
Total				15

Total - 211

Department Electives

1. CE5027 Geotechnical Investigations and Foundation Design
2. CE5031 Rock Mechanics
3. CE5032 Unsaturated Soil Mechanics and Applications
4. CE5033 Geoenvironmental Engineering
5. CE5117 Pavement Analysis and Design
6. CE5102 Structural Dynamics
7. CE5029 Nondestructive Testing and Health Monitoring of Civil Structures
8. CE5030 Random Vibration and Structural Reliability
9. CE5034 Advanced Concrete Technology
10. ME5102 Finite Element Method in Engineering Mechanics
11. CE5103 Advanced Solid Mechanics
12. CE5204 Solid and Hazardous Waste Management

Mathematics Electives

1. MA5021 Linear Algebra for Engineers
2. MA5023 Differential Equations for Engineers