

Dual Degree (B.Tech & M.Tech) Curriculum
Transportation and Infrastructure Engineering
For B.Tech 2018 Batch

Semester – I

S.No	Course No	Course Name	Category	L-T-P-C
1.	ES1101/ EA1101	Computational Engineering/ Engineering Drawing	BET/ BES	2-0-3-4 1-0-3-3
2.	CY1101/ CY1202	Physical and Theoretical Chemistry/ Organic and Inorganic Chemistry	SCY	2-1-0-3
3.	ID1101	Concepts in Engineering and Design	BET	1-0-2-2
4.	MA1101	Calculus	SMA	3-1-0-4
5.	PH1101	Introduction to Classical Mechanics	SPH	2-1-0-3
6.	PH1103/CY1204	Physics Laboratory/Chemistry Laboratory	SPH/SCY	0-0-3-2
7.	EA1103	Workshop-I	BES	0-0-3-2
8.	HS1101/ HS1103/ HS1105/ HS1107	Language Course (Pass/Fail)	HPF	2-0-0-2
Total				22/21

Semester – II

S.No	Course No	Course Name	Category	L-T-P-C
1.	ES1101/ EA1101	Computational Engineering/ Engineering Drawing	BET/ BES	2-0-3-4 1-0-3-3
2.	CY1101/ CY1202	Physical and Theoretical Chemistry Organic and Inorganic Chemistry	SCY	2-1-0-3
3.	ES2101	Engineering Mechanics	BET	3-1-0-4
4.	MA1202	Differential Equations and Matrices	SMA	3-1-0-4
5.	PH1202	Introduction to Electrodynamics and Quantum Mechanics	SPH	2-1-0-3
6.	PH1103/CY1204	Physics Laboratory/Chemistry Laboratory	SPH/SCY	0-0-3-2
7.	EA1202	Workshop-II	BES	0-0-3-2
Total				21/22

Semester – III

S.No	Course No	Course Name	Category	L-T-P-C
1.	CE2101	Strength of Materials	PMT	3-1-0-4
2.	CE2103	Surveying	PMT	3-0-0-3
3.	CE2105	Civil Engineering Materials and Construction	PMT	3-0-0-3
4.	CE2191	Surveying Practical	PML	0-0-3-2
5.	ES1201	Basic Electrical Engineering	BET	3-0-0-3
6.	ES2103	Ecology and Environment	BET	2-0-0-2
7.	HSE1	Humanities Elective-1	HSS	3-0-0-3
8.	MAE1	Mathematics Elective-1	SMA	3-0-0-3
Total				23

Semester – IV

S.No	Course No	Course Name	Category	L-T-P-C
1.	BS2101	Life Sciences	SLS	2-0-0-2
2.	CE2202	Structural Analysis	PMT	3-1-0-4
3.	CE2204	Geology and Soil Mechanics	PMT	3-1-0-4
4.	CE2206	Fluid Mechanics and Hydraulics	PMT	3-1-0-4
5.	CE2292	Structural Engineering Laboratory	PML	0-0-3-2
6.	CE2294	Building Drawing	PML	0-0-3-2
7.	MAE2	Mathematics Elective-2	SMA	3-0-0-3
Total				21

Semester – V

S.No	Course No	Course Name	Category	L-T-P-C
1.	CE3101	Basic Structural Steel Design	PMT	3-1-0-4
2.	CE3103	Water Resources Engineering	PMT	3-1-0-4
3.	CE3105	Environmental Engineering	PMT	3-1-0-4
4.	CE3191	Hydraulics and Environmental Engineering Laboratory	PML	0-0-3-2
5.	CE3193	Building Materials Laboratory	PML	0-0-3-2
6.	FRE1	Free Elective-1	FRE	3-0-0-3
7.	FRE2	Free Elective-2	FRE	3-0-0-3
Total				22

Semester – VI

S.No	Course No	Course Name	Category	L-T-P-C
1.	CE3202	Basic Reinforced Concrete Design	PMT	3-1-0-4
2.	CE3204	Geotechnical Engineering	PMT	3-1-0-4
3.	CE3206	Transportation Engineering	PMT	3-1-0-4
4.	CE3292	Transportation Engineering Laboratory	PML	0-0-3-2
5.	DPE1	Department Elective-1	PMT	3-0-0-3
6.	HSE2	Humanities Elective-2	HSS	3-0-0-3
7.	IT3202	Industrial/Research Internship	PIT	- - - 2
Total				22

Semester – VII

S.No	Course No	Course Name	Category	L-T-P-C
1.	CE4101	Estimation and Construction Management	PMT	3-1-0-4
2.	CE4103	Functional Design of Buildings	PMT	2-0-0-2
3.	CE5117	Pavement Analysis and Design	PMT	3-0-0-3
4.	CE5109	Traffic Engineering and Road Safety	PMT	3-0-0-3
5.	CE5195	Pavement Engineering Laboratory	PML	0-0-3-2
6.	CE5197	Traffic Engineering Laboratory	PML	0-0-3-2
7.	MAE3	Mathematics Elective-3	SMA	2-0-0-2
8.	IL4101	Industrial Lecture	PIL	1-0-0-1
Total				19

Semester – VIII

S.No	Course No	Course Name	Category	L-T-P-C
1.	CE5101	Pavement Materials and Construction	PMT	3-0-0-3
2.	CE5022	Traffic Flow Modeling and Simulation	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.	FRE3	Free Elective-3	FRE	3-0-0-3
6.	HS4202	Professional Ethics	HPE	2-0-0-2
7.	HSE3	Humanities Elective-3	HSS	3-0-0-3
Total				20

Semester – IX

S.No	Course No	Course Name	Category	L-T-P-C
1.	CE6111	Seminar	PMT	- - - 1
2.	DPE4	Department Elective-4	PMT	3-0-0-3
3.	FRE4	Free Elective-4	FRE	3-0-0-3
4.	CE6151	Project Phase-I	PMP	- - - 10
Total				17

Semester - X

S.No	Course No	Course Name	Category	L-T-P-C
1.	CE6251	Project Phase-II	PMT	- - - 15
2.	FRE5	Free Elective-5	FRE	3-0-0-3
Total				18

Total Credits - 205

Department Electives

- 1) CE5027 Geotechnical Investigations and Foundation Design
- 2) CE5026 GIS and Remote Sensing
- 3) CE5023 Integrated Impact Assessment
- 4) CE5031 Air Pollution Control Engineering
- 5) CE5206 Ground Improvement and Geosynthetics
- 6) ME5102 Finite Element Method in Engineering Mechanics
- 7) CE5034 Advanced Concrete Technology

Mathematics and Statistics Electives:

Mathematics Elective-3:

- 1) MA5021 Linear Algebra for Engineers
- 2) MA5022 Probability Theory for Engineers
- 3) MA5023 Differential Equations for Engineers