

**M.Tech Curriculum**  
**Geotechnical Engineering**  
From Academic Year 2020-21

**Semester I**

S. No.	Course No.	Course Name	L-T-P-C
1.	CE5027	Geotechnical Investigations and Foundation Design	3-0-0-3
2.	CE5117	Pavement Analysis and Design	3-0-0-3
3.	CE5112	Advanced Soil Mechanics	3-0-0-3
4.	CE5114	Advanced Soil Mechanics Laboratory	0-0-3-2
5.	MAE1	Mathematics Elective-1	2-0-0-2
6.	MAE2	Mathematics Elective-2	2-0-0-2
<b>Total</b>			<b>15</b>

**Semester II**

S. No.	Course No.	Course Name	L-T-P-C
1.	CE5206	Ground Improvement and Geosynthetics	3-0-0-3
2.	CE5208	Ground Improvement and Geosynthetics Laboratory	0-0-3-2
3.	CE5211	Soil Dynamics and Geotechnical Earthquake Engineering	3-0-0-3
4.	DPE1	Department Elective-1	3-0-0-3
5.	DPE2	Department Elective-2	3-0-0-3
6.	FRE1	Free Elective-1	3-0-0-3
<b>Total</b>			<b>17</b>

**Semester III**

S. No.	Course No.	Course Name	L-T-P-C
1.	CE6110	Project Phase-I	- - -10
2.	CE6150	Seminar	- - - 1
<b>Total</b>			<b>11</b>

**Semester IV**

S. No.	Course No.	Course Name	L-T-P-C
1.	CE6250	Project Phase-II	- - -15
2.	FRE2	Free Elective-2	3-0-0-3
<b>Total</b>			<b>18</b>

**Total - 61**

**Department Electives**

1. CE5029 Nondestructive Testing and Health Monitoring of Civil Structures
2. CE5031 Rock Mechanics
3. CE5032 Unsaturated Soil Mechanics and Applications
4. CE5033 Geoenvironmental Engineering
5. CE5103 Advanced Mechanics of Solids
6. CE5024 Solid and Hazardous Waste Management
7. CE5026 GIS and Remote Sensing
8. ME5102 Finite Element Method in Engineering Mechanics
9. CE5034 Advanced Concrete Technology

**Mathematics Electives**

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