

SCHEME M tech GEOTECHNICAL ENGINEERING SCHEMEOF STUDY (w.e.f.July 2024)**First Semester:**

CourseNo.	Subject	Scheme of studies periods per week			Total Credits
		L	T	P	
CE GE 1101	Geotechnical Engineering Aspects	3	-	-	3
CE GE 1102	Analysis and Design of Foundations	3	-	-	3
CE GE 1103	Reinforced SoilStructures	3	-	-	3
	Department Elective – 1	3	-	-	3
	Department Elective – 2	3	-	-	3
CE GE 1104	Soil Mechanics Lab.	-	-	2	1
CE GE 1105	Rock Mechanics Lab.	-	-	2	1
CE GE 1106	Seminar-1	-	-	2	1
CE GE 1107	Minor Project-1 (Self Learning)	-	-	-	2
HS PG	Communication Skills	-	-	-	-
Total Hours: 21 Total Credits 20		Total Semester Credits			20

Second Semester:

CourseNo.	Subject	Scheme of studies periods per week			Total Credits
		L	T	P	
CE GE 1201	Soil Dynamics	3	-	-	3
CE GE 1202	Geotechnical Investigations and Ground Improvement Techniques	3	-	-	3
	Department Elective - 3	3	-	-	3
	Department Elective - 4	3	-	-	3

	Open Elective	3	-	-	3
CE GE 1203	Soil Dynamics and Investigations Lab.	-	-	2	1
CE GE 1204	Computational Techniques in GeotechnicalEngg.	-	-	2	1
CE GE 1205	Seminar-2(Field Visit)	-	-	2	1
CE GE 1206	Minor Project-2 (Self Learning through Field Visit)	-	-	-	2
Total Hours: 21 Total Credits: 40		Total Semester Credits			20

Third Semester:

Course No.	Subject	Scheme of studies periods per week			Total Credits
		L	T	P	
CE GE 2101	Dissertation Phase- I	-	-	40	20
Total Hours: 40 Total Credits: 60		Total Semester Credits			20

Fourth Semester:

Course No.	Subject	Scheme of studies periods per week			Total Credits
		L	T	P	
CE GE 2201	Dissertation Phase- II	-	-	40	20
TotalHours:40 Total Credits:80		Total Semester Credits			20

List of DepartmentElectives		List of Open Electives	
CE GE 1151/ CE GE 1251	Expansive and Shrinkable Soils	ARP-581	Introduction to Urban Planning
CE GE 1152 / CE GE 1252	Earth Retaining Structures	BSE-581	Bioprocess Engineering
CE GE 1153 / CE GE 1153	Environmental Geotechniques	BSE-582	Biophysics Tools and Techniques
CE GE 1154 / CE GE 1254	Geotechnical Earthquake Engineering	CHE-581	Analytical Techniques
CE GE 1155 / CE GE 1255	Rock Engineering	CHE-582	Green Technology & Processes

CE GE 1156 / CE GE 1256	Landslides and Mitigation	CSE-581	Machine Learning
CE GE 1157 / CE GE 1257	Forensic Geotechnical Engineering	CSE-582	Advanced Data Structures and Algorithms
CE GE 1158 / CE GE 1258	Modern Foundations	PHY-581	Nanotechnology and Nanoscience
CE GE 1159 / CE GE 1259	Software Application in Geotechnical Engineering	EE-581	Electric Machines & Applications
CE GE 1160 / CE GE 1260	Design and Construction of Machine Foundation	EE-582	Control and Instrumentation
CE GE 1161 / CE GE 1261	Tunnel Engineering	ECE-581	Introduction to Fuzzy Logic
CE GE 1174 / CE GE 1274	Computational Methods in Civil Engineering	ECE-582	Neural Networks and its Applications
CE GE 1175 / CE GE 1275	Research Methodology	EC-581	Energy Resource Technologies
		HUM-581	Intellectual Property Rights for Engineers
		HUM-582	Applied Psychology: Human Centered Design and Engineering
		MTH-581	Advanced Operations Research
		MTH-582	Computing Technologies
		ME-581	Value Engineering
		ME-582	Design Thinking
		ME-583	Mechatronics and NDT in Engineering
		MME-581	Advanced Instrumentation Methods for Material Analysis
		MME-582	Smart Materials and their Application
		MBA-581	Engineering Startup Management