



SGT UNIVERSITY
SHREE GURU GOBIND SINGH TRICENTENARY UNIVERSITY
GURGAON, DELHI-NCR
(Established by the Haryana Act No.8 of 2013)

Department of Civil Engineering

M. Tech

Geotechnical Engineering Curriculum

SCHEME OF EXAMINATION
M.TECH –Geotechnical Engineering

Semester-I

S. NO.	Subject Code	Course Title	L	T	P	C	Examination marks		Subject Total
							Int.	Ext.	
1		Professional and Communication Skills	0	0	4	2	50	50	100
2		Advanced Soil Mechanics	3	0	0	3	50	50	100
3		Geotechnical Exploration and Instrumentation	3	0	0	3	50	50	100
4		Elective-I	3	0	0	3	50	50	100
5		Elective-II	3	0	0	3	50	50	100
6		Experimental Geo-techniques Lab	0	0	2	1	60	40	100
7		Ground Improvement Methods	3	0	0	3	50	50	100
		Total	15	0	6	18	360	340	700

II Semester

S. NO.	Subject Code	Course Title	L	T	P	C	Examination marks		Subject Total
							Int.	Ext.	
1		Rock Mechanics	3	0	0	3	50	50	100
2		Advanced Foundation Engineering	3	0	0	3	50	50	100
3		Soil Dynamics and Machine Foundations	3	0	0	3	50	50	100
4		Elective III	3	0	0	3	50	50	100
5		Elective-IV	3	0	0	3	50	50	100
7		Seminar	-	-	-	1	50	50	100
8		Rock Mechanics Lab	0	0	4	2	60	40	100
		Total	15	0	4	18	360	340	700

Semester-III

S. NO.	Subject Code	Course Title	L	T	P	C	Examination marks		Subject Total
							Int.	Ext.	
1		Soil strength behaviour	3	0	0	3	50	50	100
2		Earth retaining structures	3	0	0	3	50	50	100
3		Design of pavements	3	0	0	3	50	50	100
4		Comprehensive Examination	-	-	-	2	50	50	100
5		Research Project	-	-	-	4	50	50	100
		Total	9	0	0	15	250	250	500

Semester-IV

S. NO.	Subject Code	Course Title	L	T	P	C	Examination marks		Subject Total
							Int.	Ext.	
1		Research Project	-	-	-	16	50	50	100
		Total	0	0	0	16	50	50	100

Programme Elective I,II

S. NO.	Subject Code	Course Title	L	T	P	C	Examination marks		Subject Total
							Int.	Ext.	
1		Earth & Rock fill Dams	3	0	0	3	50	50	100
2		Computational Methods in Geotechnical Engg	3	0	0	3	50	50	100
3		Strength and Deformation Behaviour of Soils	3	0	0	3	50	50	100
4		Marine Geotechniques	3	0	0	3	50	50	100
5		Landfill Engineering	3	0	0	3	50	50	100
6		Tunneling Technology	3	0	0	3	50	50	100
7		Advanced Surveying and Cartography	3	0	0	3	50	50	100
8		Advanced Pavement Materials	3	0	0	3	50	50	100
9		Planning and Design of Low Volume Roads	3	0	0	3	50	50	100
10		Mechanics of unsaturated soils	3	0	0	3	50	50	100
Total Credits (<i>students to opt for any 3courses</i>)			6						

Programme Elective III,IV

S. NO.	Subject Code	Course Title	L	T	P	C	Examination marks		Subject Total
							Int.	Ext.	
1		Construction Methods and Equipment	3	0	0	3	50	50	100
2		Underwater Construction	3	0	0	3	50	50	100
3		Climate Change and Sustainable Development	3	0	0	3	50	50	100
4		Design with Geosynthetics	3	0	0	3	50	50	100
5		Environmental Geotechniques	3	0	0	3	50	50	100
6		Critical State Soil Mechanics	3	0	0	3	50	50	100
7		Offshore Foundations	3	0	0	3	50	50	100
8		Earthquake geotechnique	3	0	0	3	50	50	100
9		Foundation on expansive soil	3	0	0	3	50	50	100
10		Earth pressure theory	3	0	0	3	50	50	100
Total Credits (<i>students to opt for any 3 courses</i>)			6						

Total Credit offer= 67