

Course Code	Course Name	Course Type	Cd	L	T	P	Marks		
							Sessional	Final Exam	Total
CE-512	Geotechnical Engineering-Lab	PCC	1	0	0	2	50	0	50

**Course Outcomes:**

At the end of the course the student will be able to:

CO1	Analyse the soil density and Specific gravity of soil sample.
CO2	Calculate uniformity coefficient (Cu) and coefficient of curvature (Cc).
CO3	Analyse the permeability of soil.
CO4	Explain the basics of compaction and consolidation.
CO5	Determine the shear characteristics and strength of soil.

**List of Experiments for Geotechnical Engineering-Lab**

S. No.	Experiments
1	Practice on dial gauge.
2	Determine the moisture percentage in Soils.
3	Determination of in-situ density by core cutter method and Sand replacement method.
4	Determination of Shrinkage Limit of Soil.
5	Identification of gravel type, sand type, silt type and clay types soils.
6	Grain size analysis of sand and determination of uniformity coefficient (Cu) and coefficient of curvature (Cc).
7	Determination of specific gravity of soil solids by pycnometer method.
8	Compaction test of soil in Standard Proctor test.
9	Determination of Relative Density of soil.
10	Perform Field density test of soil.
11	Determination of permeability by Constant Head Method.
12	To determine field density using core cutter method.
13	To determine shear parameters of cohesive soil by Unconfined Compression Test.
14	To determine the shearing strength of the soil using the direct shear apparatus (Direct Shear Test).
15	To find the shear of the soil by undrained triaxial test.
16	To determine the bearing capacity of soil by Standard Penetration Test (SPT).