

## KCE-552 Geotechnical Engineering Lab

S.No.	Name of major equipment/setup
1	Pycnometer
3	Triaxial Apparatus
4	Unconfined test apparatus
5	Vane shear test apparatus
6	Permeability test
7	Speedy Moisture Meter
8	Oven
9	Procter Test (light and heavy Procter)
10	Core cutter
11	Sand replacement
12	Hydrometer
13	CBR apparatus
14	Casgrande apparatus
15	Direct shear test
16	Blade Type Auger
18	Static cone
19	Relative density
20	Sieve shaker
21	Sieve set

**LIST OF EXPERIMENTS**  
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1. Determination of water content of a given moist soil sample by (i) oven drying method, (ii) Pycnometer method.
2. Determination of specific gravity of a given soil sample by (i) density bottle, (ii) pycnometer Method.
3. Determination of in situ dry density of soil mass by (i) core-cutter method, (ii) sand replacement method.
4. Determination of relative density of a given soil sample.
5. Determination of complete grain size distribution of a given soil sample by sieve analysis and sedimentation (hydrometer) analysis.
6. Determination of consistency limits (liquid, plastic and shrinkage limits) of the soil sample used in experiment no. 5 (grain-size analysis).
7. Determination of shear strength of soil by Direct shear test.
8. Determination of compaction characteristics (OMC & MDD) of a given soil sample.
9. Determination of permeability of a remoulded soil sample by constant head &/or falling head method.
10. Determination of consolidation characteristics of a remoulded soil sample by an odometer test.
11. Determination of shear strength characteristics of a given soil sample by U/U test from Triaxial Compression Machine.
12. Retrieving soil samples and conducting SPT tests by advancing boreholes through hand-held auger.