

Faculty of Civil Engineering
M. E. Soil Mechanics and Foundation Engineering
Regulations 2021 Semester: I

Course Code: SF4111		Course Title: Advanced Soil Mechanics Laboratory - I
Sl.No.	Description of Equipment	Required numbers (for batch of 25 students)
1.	Density Bottle with Stopper	5
2.	Set of IS Sieves (0.075mm, 0.125mm, 0.212mm, 0.425mm, 0.710mm, 1.18mm, 2.36 mm, 4.75mm)	1
3.	Mechanical Sieve Shaker	1
4.	Hydrometer	2
5.	Mixer	1
6.	Glass cylinder (1000ml)	2
7.	Thermometer	2
8.	Casagrande Liquid limit apparatus with tools	2
9.	China dish	4
10.	Spatula	10
11.	3mm diameter M.S. Rod	1
12.	Measuring Jar (100 ml)	10
13.	Mercury – ½ lit	1
14.	Mercury displacement device	1
15.	Rubber Pad (15cm x 15 cm x 1cm)	1
16.	Wash bottle	10
17.	Glass plate (30cm x 30cm x 1cm)	1
18.	Sand pouring cylinder	1

19.	Calibrating Container	1
20.	Metal Tray	1
21.	Hammer	1
22.	Weighing balance (10 kg capacity with 100 g accuracy)	1
23.	Weighing balance (500 g capacity with 0.1 g accuracy)	1
24.	Thermostatically Controlled oven	2
25.	Containers	1
26.	Bench top pH meter with combination pH electrode	1
27.	Glass beaker (100 cc)	6
28.	Wash bottle	4
29.	Stirrer	2
30.	Bench top Conductivity / TDS meter with conductivity cell	1
31.	Digital flame photometer	1
32.	Conical flask (200 ml)	2
33.	Pipette (10 x 0.1 ml)	2
34.	Burette (50 x 0.1 ml)	2
35.	Measuring jar (50 ml)	2
36.	Measuring jar (100 ml)	2
37.	Standard Proctor Mould with Collar	1
38.	2.6 kg hammer	1
39.	4.9 kg hammer	1
40.	Mixing Pan	1
41.	Soil trimmer	1

42.	Sample Ejector	1
43.	CBR Mould with Collar and disc	1
44.	Hammer	1
45.	Compression testing machine (5T capacity)	1
46.	One dimensional consolidation equipment with all accessories	1
47.	Filter paper	1
48.	Porous stone	2
49.	Wash bottle	1
50.	Stop watch	1
51.	Measuring jar	2
52.	Measuring scale	1
53.	Permeameter Mould	1
54.	Constant Head Tank	1
55.	Drainage Pad	4
56.	Burette of different diameter with stand	1
57.	Load frame hand operated capacity 5kN	1
58.	Mould 1000ml volume with base plate and collar	1
59.	Proving ring 2.5kN capacity	1
60.	Dial gauge 25mm travel, 0.01mm least count	2
61.	Perforated swell plate 100mm dia x 16mm thick	1
62.	Spacer 100 mm dia x 12.7mm thick	1
63.	Pair of porous stone 100mm dia x 12.7mm thick	4
64.	Load transfer bar	1

65.	Steel ball	2
66.	Soaking tank 250mm dia x 210mm height	1

Degree: PG Name of the Course: M.E. SOIL MECHANICS AND FOUNDATION ENGINEERING		
Course Code: SF4211 Course Title: ADVANCED SOIL MECHANICS LABORATORY - II Semester: II		
Sl. No.	Description of Equipment	Required numbers
1.	Direct Shear Apparatus for Testing Soil	1
2.	Triaxial Compression Apparatus	1
3.	Loading Frame 50kN Capacity	1
4.	Vane Shear Test Apparatus	1
5.	Cyclic Triaxial Servo Controlled System	1
6.	Pressure Plate Apparatus	1
7.	UTM 100kN Capacity With Different Grip Wedges for Testing Geosynthetics	1
8.	Point Load Index Tester	1
9.	Brazilian Test Apparatus	1
10.	Uniaxial Compressive Strength for Testing Rocks	1
11.	Model Tank, Loading Frame With Hydraulic Jack Arrangement	Optional
12.	Direct Shear Apparatus for Testing Geosynthetics, Geotextile, Geogrid samples	1 roll each
13.	Standard beads for Obtaining AOS of Geotextiles	0.15mm to 0.75mm – 1 kg 0.25mm to 0.18mm – 1 kg 0.18mm to 0.15mm – 1 kg
14.	Permeability Apparatus for Testing Geosynthetics	1
15.	Direct Shear Apparatus for Testing Rocks	1
16.	Dynamic Sieve Apparatus for Testing Rocks	1