

Indian Institute of Technology Mandi

Course Number:	CE311P
Course Name:	Geotechnical Engineering Laboratory
Credits:	0-0-2-1
Prerequisites:	NIL
Intended for:	UG students (B.Tech. 3 rd Year)
Distribution:	Discipline Core
Semester:	odd/even

Permeable: The laboratory exercises aim at providing the required standard test procedures discussed in geotechnical engineering course. The students would be exposed to the hands on experience on the various tests on soil and provides a scope of extending them to various materials as possible.

Laboratory Modules:

1. Determination of Specific Gravity
2. Grain Size Analysis (a) Sieve analysis (b) Hydrometer Analysis
3. Determination of Consistency Limits
4. Permeability Test (a) Constant Head Testing (b) Falling Head testing
5. Proctor Test
6. Direct Shear Test
7. Unconfined Compression Test
8. Vane Shear Test
9. Field Density Test
10. Free swell and consolidation test
11. Triaxial Testing

Text Books:

- a) V. N. S. Murty, 'Geotechnical Engineering', Book World Enterprises, 2005.
- b) Braja M. Das, 'Principles of Geotechnical Engineering', Cengage Learning, 7th edition and above

Reference books:

- (a) Indian standards using Geotechnical Testing

Justification for new course proposal if cumulative similarity content is more than 30%:

Not applicable.