



Soil Behaviour and Classification

DURATION

5 days

CONTACT HOURS

30

LEVEL

Intermediate

FEE PER DELEGATE

US\$1,500

Soil as an engineering material: how it is classified, how it behaves under load and water, and what that means on a mine site.

Mines build on, in and out of soil, and most of the failures that follow trace to a property nobody measured. This week covers classification systems and the index tests behind them, then the behaviour that matters in practice: compaction, permeability, consolidation and shear strength. Mining applications run throughout, from tailings foundations and haul road subgrades to soil stripping for rehabilitation, which is a different problem again.

Available as classroom, live online, in house.

Who it is for

Geotechnical and civil engineers, mine planners and environmental staff, laboratory technicians, and construction supervisors on mine sites.

What you will be able to do

- Classify a soil using standard systems and index tests.
- Relate particle size, plasticity and structure to behaviour.
- Interpret compaction, permeability and consolidation results.
- Apply shear strength parameters to a stability problem.
- Judge soil suitability for a mining application.

The outline

DAY 1

Composition and classification

Particle size, shape and mineralogy · Atterberg limits and plasticity · Unified and AASHTO classification

DAY 2

Water in soil

Permeability and seepage · Effective stress and pore pressure · Capillarity and suction

DAY 3

Compaction and consolidation

Proctor testing and field control · Consolidation and settlement prediction · Collapse, swelling and dispersive soils

DAY 4

Strength

Shear strength parameters, and how they are measured · Drained and undrained conditions · Residual strength and progressive failure

DAY 5

Mining applications

Foundations for plant and storage facilities · Haul road subgrade and pavement · Soil stripping, stockpiling and rehabilitation use

What you leave with

- Classification of a set of real samples.
- A laboratory data interpretation sheet.
- A suitability assessment for one site application.

Published dates

DATES	WHERE	FEE
23 to 27 November 2026	Nairobi, Kenya	US\$1,500
30 November 2026 to 4 December 2026	Lagos, Nigeria	US\$1,500
7 to 11 December 2026	Cairo, Egypt	US\$1,500
14 to 18 December 2026	Windhoek, Namibia	R15,000

Fees are per delegate and cover all course materials. Registration fees are arranged by the delegate. Reg

Register or ask a question

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