



ENGINEERING AND TECHNICAL TRAINING

Geotechnical Investigation and Soil Testing

5 day course

Classroom, online or in-house

Course overview

A ground investigation is the cheapest part of a project and the one most often cut, which is why so many contracts are settled on a claim for conditions that a few more boreholes would have found. This course covers doing it properly. Delegates work through planning an investigation to the questions the design actually needs answered, rather than to a standard number of holes. Field methods are covered: trial pits, auger and rotary boring, standard penetration testing, cone penetration testing and geophysics, with what each can and cannot tell you. Sampling and sample disturbance are addressed. Laboratory classification follows, covering grading, Atterberg limits and moisture content. Strength and compressibility testing are covered, including shear box, triaxial and consolidation. Problem soils of the region are addressed directly: expansive clays, collapsible sands and dolomitic ground. Groundwater and its measurement follow. The course closes on interpreting results into design parameters and on writing a factual and an interpretative report.

What you will learn

- Plan an investigation around the questions the design must answer
- Select field methods and know the limits of each
- Sample without disturbance that invalidates the result
- Classify soils by grading, Atterberg limits and moisture
- Run and interpret shear box, triaxial and consolidation tests
- Recognise expansive, collapsible and dolomitic ground
- Convert results into design parameters and report them properly

Who should attend

- Geotechnical and civil engineers
- Soils laboratory technicians
- Site investigation supervisors
- Structural engineers commissioning investigations
- Project managers procuring ground investigation

Course outline

- 01 The cheapest part, most often cut
- 02 Planning to the design questions
- 03 Trial pits, boring and penetration testing
- 04 Geophysics and its limits
- 05 Sampling and disturbance
- 06 Classification testing
- 07 Strength and compressibility testing
- 08 Problem soils, groundwater and reporting

Upcoming dates

Dates	Venue	Format	Fee per delegate
21 to 25 September 2026	Online	Online	R8,500
28 September to 2 October 2026	Lagos, Nigeria	Classroom	USD 1,325
12 to 16 October 2026	Durban, South Africa	Classroom	R19,950



Fees and how to register

This 5 day course is **R8,500** per delegate online, **R19,950** in the classroom in South Africa, Botswana, Namibia, Lesotho and Eswatini, and **USD 1,325** in the classroom elsewhere in Africa. In-house training is quotation on request. Book 2 or more delegates on this course and save 10%.

To register or request an in-house proposal, visit www.afrisciencegroup.com, email info@afiscience.co.za, or WhatsApp us on **+27 63 479 1136**.

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