



MINING AND MINERALS TRAINING

Rock Mechanics and Ground Control

5 day course

Classroom, online or in-house

Course overview

Ground failure is the hazard that kills most often in mining, and the engineering that prevents it is done long before anybody is underground or on a bench. This course covers that engineering. Delegates work through rock mass characterisation and the classification systems used, in situ and induced stress, and the failure mechanisms that govern open pit slopes and underground excavations. Slope stability analysis and support design are worked through on real geometry, alongside the monitoring that gives warning of movement. The course closes on the ground control management plan, the trigger action response process, and the judgement of when to stop work, which is the decision the whole discipline exists to inform.

What you will learn

- Characterise a rock mass and apply the common classification systems
- Assess in situ and induced stress around an excavation
- Identify the failure mechanisms governing slopes and underground openings
- Carry out slope stability analysis and interpret the result
- Design ground support appropriate to the conditions
- Specify monitoring that gives usable warning of movement
- Build a ground control management plan with trigger action responses

Who should attend

- Geotechnical and mining engineers
- Underground and open pit production engineers
- Mine surveyors and geologists
- Health and safety professionals in mining
- Supervisors responsible for ground conditions

Course outline

- 01 Rock mass characterisation and classification
- 02 In situ and induced stress
- 03 Failure mechanisms in slopes
- 04 Failure mechanisms underground
- 05 Slope stability analysis
- 06 Ground support design
- 07 Monitoring and interpreting movement
- 08 Ground control management plans and trigger action responses

Upcoming dates

Dates	Venue	Format	Fee per delegate
3 to 7 October 2026	Online	Online	R7,500
8 to 12 October 2026	Lagos, Nigeria	Classroom	R11,995
18 to 22 November 2026	Dubai, UAE	Classroom	R11,995
21 to 25 November 2026	Dar es Salaam, Tanzania	Classroom	R11,995



Fees and how to register

Online **from R6,500** per delegate, classroom **from R11,995** per delegate, 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@afriScience.co.za, or WhatsApp us on **+27 63 479 1136**.

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