



MINING AND MINERALS TRAINING

Mine Backfill Systems and Design

5 day course

Classroom, online or in-house

Course overview

Backfill returns waste underground, supports the ground so adjacent stopes can be mined and removes material that would otherwise sit on a tailings facility, which makes it a geotechnical, environmental and production system at once. This course covers all three. Delegates work through fill types including rock, hydraulic and paste fill and what each requires, binder selection and the strength development a mining sequence depends on, and rheology and the reticulation that delivers fill to a stope. Barricade design and the failures that have killed people are covered directly. Placement, drainage and curing follow. Quality control and strength verification are addressed. The course closes on integrating fill into the mining sequence and on the cost trade off against tailings disposal.

What you will learn

- Compare rock, hydraulic and paste fill and their requirements
- Select binders and design for the required strength development
- Design reticulation and manage fill rheology
- Design barricades and understand the failure mechanisms
- Place, drain and cure fill correctly
- Verify strength through quality control
- Integrate fill into the mining sequence and assess the cost trade off

Who should attend

- Mining and geotechnical engineers
- Backfill plant operators and supervisors
- Metallurgists producing paste or tailings fill
- Production supervisors placing fill
- Tailings and environmental staff

Course outline

- 01 Geotechnical, environmental and production at once
- 02 Rock, hydraulic and paste fill
- 03 Binder selection and strength development
- 04 Rheology and reticulation
- 05 Barricade design and failure mechanisms
- 06 Placement, drainage and curing
- 07 Quality control and strength verification
- 08 Sequence integration and cost against tailings disposal

Upcoming dates

Dates	Venue	Format	Fee per delegate
23 to 27 November 2026	Kigali, Rwanda	Classroom	USD 1,325
25 to 29 January 2027	Johannesburg, South Africa	Classroom	R19,950
1 to 5 February 2027	Online	Online	R8,500

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@afriscience.co.za, or WhatsApp us on **+27 63 479 1136**.

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