



MINING AND MINERALS TRAINING

Mine Electrical Systems and Underground Reticulation

5 day course

Classroom, online or in-house

Course overview

Underground electrical distribution supplies equipment in wet, confined and sometimes explosive conditions, through cables that are moved regularly and connected by people working in poor light. This course covers that system. Delegates work through mine reticulation from surface substation through shaft cables to underground distribution, earth leakage and earth fault protection which is the primary personal protection underground, and cable types, handling and the joints and terminations where most faults occur. Flameproof and intrinsically safe equipment is covered for gassy conditions. Switching, isolation and lock out in an underground environment follow. Lighting, communication and emergency supply are addressed. The course closes on fault finding underground and on the statutory inspection regime.

What you will learn

- Describe mine reticulation from surface to underground distribution
- Apply earth leakage and earth fault protection correctly
- Select, handle, joint and terminate mine cables
- Apply flameproof and intrinsically safe equipment requirements
- Switch, isolate and lock out safely underground
- Maintain lighting, communication and emergency supply
- Find faults underground and meet statutory inspection requirements

Who should attend

- Mine electricians and electrical foremen
- Electrical engineers on mining operations
- Maintenance supervisors underground
- Safety officers responsible for electrical risk
- Contractors working on mine electrical systems

Course outline

- 01 Distribution in wet, confined and gassy conditions
- 02 Surface substation to shaft cables
- 03 Underground distribution and substations
- 04 Earth leakage and earth fault protection
- 05 Cable types, handling and terminations
- 06 Flameproof and intrinsically safe equipment
- 07 Switching, isolation and lock out
- 08 Lighting, emergency supply, fault finding and inspection

Upcoming dates

Dates	Venue	Format	Fee per delegate
26 to 30 October 2026	Harare, Zimbabwe	Classroom	USD 1,325
2 to 6 November 2026	Lagos, Nigeria	Classroom	USD 1,325
23 to 27 November 2026	Cape Town, South Africa	Classroom	R19,950
7 to 11 December 2026	Johannesburg, 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@afriscience.co.za, or WhatsApp us on **+27 63 479 1136**.

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