



MINING AND MINERALS TRAINING

Heap Leaching and Solvent Extraction

5 day course

Classroom, online or in-house

Course overview

Heap leaching makes low grade orebodies economic that no concentrator could treat, and it does so slowly, outdoors, with chemistry that depends on how the heap was built years earlier. This course covers the whole route. Delegates work through ore amenability and column test work, agglomeration and heap construction including permeability and stacking, and irrigation, aeration and solution management. Leach chemistry is covered for copper and for gold. Solvent extraction follows: reagent chemistry, mixer settler operation, and the crud and entrainment problems that dominate practical operation. Electrowinning completes the circuit. The course closes on water balance, on closure of a spent heap and on troubleshooting a heap that has stopped producing.

What you will learn

- Assess ore amenability through column test work
- Agglomerate and construct a heap that stays permeable
- Manage irrigation, aeration and solution inventory
- Control leach chemistry for the metal being recovered
- Operate solvent extraction mixer settlers
- Diagnose crud, entrainment and phase disengagement problems
- Manage water balance, heap closure and a stalled heap

Who should attend

- Hydrometallurgists and process engineers
- Heap leach and plant operators and supervisors
- Metallurgical laboratory staff
- Environmental staff managing solution and water
- Technical managers on leach operations

Course outline

- 01 Making low grade orebodies economic
- 02 Ore amenability and column testing
- 03 Agglomeration and heap construction
- 04 Irrigation, aeration and solution management
- 05 Leach chemistry for copper and gold
- 06 Solvent extraction reagents and mixer settlers
- 07 Crud, entrainment and electrowinning
- 08 Water balance, closure and troubleshooting

Upcoming dates

Dates	Venue	Format	Fee per delegate
28 September to 2 October 2026	Durban, South Africa	Classroom	R19,950
16 to 20 November 2026	Gaborone, Botswana	Classroom	R19,950
30 November to 4 December 2026	Online	Online	R8,500
28 December 2026 to 1 January 2027	Windhoek, Namibia	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**.

AfriScience Group | +27 61 536 6531 | info@afriscience.co.za | Pretoria, Gauteng, South Africa