

**Mining, Metals & Cement****Rare specialisation****New from 2029**

Critical Minerals & Battery Metals

المعادن الحرجة ومعادن البطاريات

Duration

5 or 10 days

Language

English or Arabic

Formats

Classroom, online, in-house

Hours

35 / 70

Overview

Critical Minerals & Battery Metals is part of the Mining, Metals & Cement track at Garnet Global Training Center. Process, maintenance and safety programs for mines, smelters and cement plants. The course is taught in English or Arabic as a 5-day or 10-day program, in classrooms in cities such as Dubai, Riyadh, Cairo, London and Istanbul, or live online, and it can be delivered in-house with examples and exercises built around your own operations.

What you will be able to do

- Explain the principles, terminology and standards that govern Critical Minerals & Battery Metals.
- Apply proven methods and tools to real situations from your own workplace.
- Analyse performance gaps, risks and root causes, and choose the right response.
- Measure results with practical indicators and report them clearly to management.
- Leave with a personal action plan you can start using the following week.

Who should attend

Process and maintenance engineers, plant managers and safety leads in heavy industry.

Key topics

- Process flow and mass balance
- Kilns, mills and crushers
- Wear, refractories and reliability
- Energy and fuel efficiency
- Dust, emissions and safety
- Quality control

Formats and fees

5-day classroom	USD 4,750
5-day online	USD 2,950
10-day classroom	USD 8,950
10-day online	USD 5,450
In-house	Quotation per group

Fees per participant, excluding VAT.

Register or ask

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Sharjah Publishing City Free Zone,
Sharjah, UAE

Certificate

Participants who attend at least 90% of sessions and complete the final assessment receive a certificate of completion stating 35 contact hours (5-day) or 70 contact hours (10-day).

5-day outline

Day 1 Foundations of Critical Minerals & Battery Metals

- Scope, terminology and governing standards
- Process flow and mass balance

Day 2 Methods and tools

- Kilns, mills and crushers
- Wear, refractories and reliability

Day 3 Application and case studies

- Energy and fuel efficiency
- Quality control

Day 4 Performance, risk and compliance

- Dust, emissions and safety
- Measurement and reporting

Day 5 Workshop, assessment and action plan

- Hands-on workshop on a workplace challenge
- Final assessment and personal action plan

10-day outline

Day 1 Foundations of Critical Minerals & Battery Metals

- Scope, terminology and governing standards
- Process flow and mass balance

Day 2 Methods and tools

- Kilns, mills and crushers
- Wear, refractories and reliability

Day 3 Application and case studies

- Energy and fuel efficiency
- Quality control

Day 4 Performance, risk and compliance

- Dust, emissions and safety
- Measurement and reporting

Day 5 Workshop, assessment and action plan

- Hands-on workshop on a workplace challenge
- Final assessment and personal action plan

Day 6 Advanced techniques and specialist practice

- Complex cases in depth
- Common mistakes and how to avoid them

Day 7 Digital tools, data and automation

- Analysis tools and software
- Using AI in this field

Day 8 Benchmarking against international practice

- Global performance benchmarks
- International case studies

Day 9 Capstone project

- Analyse a real challenge from your organisation
- Build the solution and implementation plan

Day 10 Presentations, final assessment and certificates

- Project presentations and review
- Final exam and certificate award

Schedule 2027–2030

Dates	Format	City	Language	Fee (USD)
12–16 Mar 2029	5-day online	Live online	English	2,950
16–27 Apr 2029	10-day online	Live online	English	5,450
13–17 May 2029	5-day classroom	Kuwait City	Arabic	4,750
1–12 Oct 2029	10-day classroom	Dubai	Arabic	8,950
10–14 Dec 2029	5-day classroom	Kuala Lumpur	English	4,750
17–21 Mar 2030	5-day classroom	Jeddah	Arabic	4,750
15–19 Jul 2030	5-day online	Live online	English	2,950
19–30 Aug 2030	10-day classroom	Dubai	English	8,950
7–11 Oct 2030	5-day classroom	London	English	4,750
4–15 Nov 2030	10-day online	Live online	English	5,450

Customised and in-house versions of this course are available on request. www.garnettrainings.com/en/customise/