Garnet
Garnet Global Training Center

GGT-MN-116

Mining, Metals & Cement

Heat Treatment of Metals

المعالجة الحرارية للمعادن

Duration	Language	Formats	Hours	Level
5 or 10 days	**English or Arabic**	**Classroom, online, in-house**	**35 / 70**	**Intermediate (practitioner)**

Overview

Heat Treatment of Metals turns established good practice into step-by-step methods that participants rehearse in exercises and then apply at work. Process, maintenance and safety programs for mines, smelters and cement plants. Choose 5 or 10 days, classroom or live online, English or Arabic; organisations can also run it in-house and adapt the examples to their own work.

What you will be able to do

- Apply the methods and standards of Heat Treatment of Metals to real tasks.
- Interpret data and results correctly and act on them.
- Follow safe, compliant and documented work practices.
- Avoid the mistakes that most often cause rework or failure.
- Share good practice with your team.

Who should attend

Process and maintenance engineers, plant managers and safety leads in heavy industry. Practitioners with one to five years of experience benefit most.

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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Email: info@garnettrainings.com

Training: training@garnettrainings.com

Web: garnettrainings.com

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 Heat Treatment of Metals: principles and standards

- Process flow and mass balance
- Common mistakes and how to avoid them

Day 2 Methods and tools in practice

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

Day 3 Diagnosis and problem solving

- Energy and fuel efficiency
- Regional and international case studies

Day 4 Quality, safety and documentation

- Dust, emissions and safety
- Checklists and templates to take away

Day 5 Workshop, assessment and action plan

- Quality control
- Group discussion and peer review

10-day outline

Day 1 Heat Treatment of Metals: principles and standards

- Process flow and mass balance
- Common mistakes and how to avoid them

Day 2 Methods and tools in practice

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

Day 3 Diagnosis and problem solving

- Energy and fuel efficiency
- Regional and international case studies

Day 4 Quality, safety and documentation

- Dust, emissions and safety
- Checklists and templates to take away

Day 5 Workshop, assessment and action plan

- Quality control
- Group discussion and peer review

Day 6 Advanced techniques and specialist practice

- Complex cases in depth
- Measurement and reporting

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
- Hands-on workshop on a workplace challenge

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)
15–19 Mar 2027	5-day online	Live online	English	2,950
12–16 Apr 2027	5-day classroom	Istanbul	English	4,750
8–12 Nov 2027	5-day classroom	Abu Dhabi	English	4,750
20–31 Dec 2027	10-day classroom	Paris	English	8,950
14–18 Feb 2028	5-day classroom	Casablanca	Arabic	4,750
6–17 Mar 2028	10-day online	Live online	Arabic	5,450
12–16 Jun 2028	5-day classroom	Dubai	Arabic	4,750
6–17 Nov 2028	10-day classroom	Geneva	English	8,950
19–23 Mar 2029	5-day online	Live online	Arabic	2,950

Dates	Format	City	Language	Fee (USD)
4–8 Jun 2029	5-day classroom	Casablanca	Arabic	4,750
13–17 Aug 2029	5-day classroom	Dubai	English	4,750
7–18 Oct 2029	10-day classroom	Doha	English	8,950
4–15 Feb 2030	10-day online	Live online	English	5,450
8–19 Apr 2030	10-day classroom	Amsterdam	English	8,950
11–15 Aug 2030	5-day classroom	Jeddah	English	4,750
21–25 Oct 2030	5-day classroom	Istanbul	English	4,750

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