Garnet
Garnet Global Training Center

GGT-CH-105

Chemical & Process Engineering

Catalyst Management & Reactor Operation

إدارة المحفزات وتشغيل المفاعلات

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

Overview

This program treats Catalyst Management & Reactor Operation as a managed system: policies, roles, resources, performance indicators and continual improvement. Process design, control and optimisation for chemical, petrochemical and fertiliser 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

- Set up and run Catalyst Management & Reactor Operation as a managed process with clear roles.
- Define KPIs and build simple dashboards for management.
- Control risk, quality and compliance in this area.
- Lead improvement projects and measure their benefit.
- Report clearly to senior management and stakeholders.

Who should attend

Process and chemical engineers, plant operators and technical service teams. It suits supervisors, section heads and specialists who manage, or are about to manage, this area.

Key topics

- Mass and energy balances
- Unit operations
- Process control
- Simulation and optimisation
- Catalysts and reactions
- Troubleshooting

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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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 Catalyst Management & Reactor Operation: the management framework

- Process control
- Hands-on workshop on a workplace challenge

Day 2 Planning, resources and budgets

- Simulation and optimisation
- Catalysts and reactions

Day 3 Performance measurement and control

- Troubleshooting
- Common mistakes and how to avoid them

Day 4 Risk, compliance and improvement

- Mass and energy balances
- Regional and international case studies

Day 5 Management case study and action plan

- Unit operations
- Checklists and templates to take away

10-day outline

Day 1 Catalyst Management & Reactor Operation: the management framework

- Process control
- Hands-on workshop on a workplace challenge

Day 2 Planning, resources and budgets

- Simulation and optimisation
- Catalysts and reactions

Day 3 Performance measurement and control

- Troubleshooting
- Common mistakes and how to avoid them

Day 4 Risk, compliance and improvement

- Mass and energy balances
- Regional and international case studies

Day 5 Management case study and action plan

- Unit operations
- Checklists and templates to take away

Day 6 Advanced techniques and specialist practice

- Complex cases in depth
- Group discussion and peer review

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
- Measurement and reporting

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 Feb 2027	5-day classroom	Istanbul	English	4,750
5–9 Apr 2027	5-day online	Live online	English	2,950
15–26 Nov 2027	10-day classroom	London	English	8,950
5–9 Dec 2027	5-day classroom	Kuwait City	Arabic	4,750
8–12 May 2028	5-day classroom	London	English	4,750
18–29 Sep 2028	10-day online	Live online	English	5,450
9–13 Oct 2028	5-day classroom	Barcelona	English	4,750
5–16 Nov 2028	10-day classroom	Amman	Arabic	8,950
12–16 Feb 2029	5-day online	Live online	English	2,950

Dates	Format	City	Language	Fee (USD)
9–13 Jul 2029	5-day classroom	Dubai	English	4,750
5–9 Aug 2029	5-day classroom	Jeddah	Arabic	4,750
12–23 Nov 2029	10-day classroom	Amsterdam	English	8,950
1–5 Apr 2030	5-day classroom	London	English	4,750
20–31 May 2030	10-day online	Live online	English	5,450
5–16 Aug 2030	10-day classroom	Abu Dhabi	Arabic	8,950
7–11 Oct 2030	5-day classroom	Paris	English	4,750

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