Garnet
Garnet Global Training Center

GGT-CH-119

Chemical & Process Engineering

Chemical Engineering for Non-Chemical Engineers

الهندسة الكيميائية لغير الكيميائيين

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

Overview

Chemical Engineering for Non-Chemical Engineers is designed for people who are new to the subject, or who need a structured refresher before taking on more responsibility. 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

- Explain the key concepts, terms and standards of Chemical Engineering for Non-Chemical Engineers.
- Know when to escalate and who to involve.
- Communicate confidently with specialists and colleagues.
- Plan the next steps in your own learning.
- Recognise the main hazards, errors and misconceptions newcomers face.

Who should attend

Process and chemical engineers, plant operators and technical service teams. No prior experience is required; it also suits new hires, graduates and staff moving into this field.

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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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 Introduction to Chemical Engineering for Non-Chemical Engineers

- Process control
- Checklists and templates to take away

Day 2 Core concepts and terminology

- Simulation and optimisation
- Catalysts and reactions

Day 3 Basic methods and tools

- Troubleshooting
- Group discussion and peer review

Day 4 Working safely and correctly

- Mass and energy balances
- Measurement and reporting

Day 5 Practical exercises and review

- Unit operations
- Hands-on workshop on a workplace challenge

10-day outline

Day 1 Introduction to Chemical Engineering for Non-Chemical Engineers

- Process control
- Checklists and templates to take away

Day 2 Core concepts and terminology

- Simulation and optimisation
- Catalysts and reactions

Day 3 Basic methods and tools

- Troubleshooting
- Group discussion and peer review

Day 4 Working safely and correctly

- Mass and energy balances
- Measurement and reporting

Day 5 Practical exercises and review

- Unit operations
- Hands-on workshop on a workplace challenge

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
- Regional and 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)
4–8 Jan 2027	5-day classroom	Dubai	Arabic	4,750
2–6 May 2027	5-day classroom	Riyadh	English	4,750
9–13 Aug 2027	5-day online	Live online	Arabic	2,950
6–17 Dec 2027	10-day classroom	Amsterdam	English	8,950
20–24 Feb 2028	5-day classroom	Riyadh	English	4,750
21–25 May 2028	5-day classroom	Muscat	Arabic	4,750
17–28 Jul 2028	10-day online	Live online	Arabic	5,450
20–31 Aug 2028	10-day classroom	Jeddah	Arabic	8,950
19 Feb – 2 Mar 2029	10-day classroom	Dubai	Arabic	8,950

Dates	Format	City	Language	Fee (USD)
4–8 Jun 2029	5-day classroom	Vienna	English	4,750
15–19 Oct 2029	5-day online	Live online	English	2,950
19–23 Nov 2029	5-day classroom	London	English	4,750
20–31 May 2030	10-day classroom	Dubai	English	8,950
11–15 Aug 2030	5-day classroom	Amman	English	4,750
1–5 Sep 2030	5-day classroom	Kuwait City	English	4,750
18–29 Nov 2030	10-day online	Live online	English	5,450

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