Garnet
Garnet Global Training Center

GGT-CH-103

Chemical & Process Engineering

Process Simulation

محاكاة العمليات

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

Overview

Process Simulation turns established good practice into step-by-step methods that participants rehearse in exercises and then apply at work. Process design, control and optimisation for chemical, petrochemical and fertiliser plants. You can join a public session in one of 20 cities or live online, in English or Arabic, or bring the course in-house with examples from your own operations.

What you will be able to do

- Apply the methods and standards of Process Simulation to real tasks.
- Follow safe, compliant and documented work practices.
- Avoid the mistakes that most often cause rework or failure.
- Share good practice with your team.
- Use the right tools, checks and calculations step by step.

Who should attend

Process and chemical engineers, plant operators and technical service teams. Practitioners with one to five years of experience benefit most.

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 Process Simulation: principles and standards
- Unit operations
- Measurement and reporting

Day 2 Methods and tools in practice
- Process control
- Simulation and optimisation

Day 3 Diagnosis and problem solving
- Catalysts and reactions
- Hands-on workshop on a workplace challenge

Day 4 Quality, safety and documentation
- Troubleshooting
- Common mistakes and how to avoid them

Day 5 Workshop, assessment and action plan
- Mass and energy balances
- Regional and international case studies

10-day outline

Day 1 Process Simulation: principles and standards
- Unit operations
- Measurement and reporting

Day 2 Methods and tools in practice
- Process control
- Simulation and optimisation

Day 3 Diagnosis and problem solving
- Catalysts and reactions
- Hands-on workshop on a workplace challenge

Day 4 Quality, safety and documentation
- Troubleshooting
- Common mistakes and how to avoid them

Day 5 Workshop, assessment and action plan
- Mass and energy balances
- Regional and international case studies

Day 6 Advanced techniques and specialist practice
- Complex cases in depth
- Checklists and templates to take away

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
- Group discussion and peer review

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)
17–28 May 2027	10-day classroom	Dubai	Arabic	8,950
6–10 Jun 2027	5-day classroom	Riyadh	Arabic	4,750
19–23 Jul 2027	5-day online	Live online	Arabic	2,950
16–20 Aug 2027	5-day classroom	Paris	English	4,750
20–31 Mar 2028	10-day online	Live online	Arabic	5,450
12–23 Jun 2028	10-day classroom	Dubai	English	8,950
20–24 Aug 2028	5-day classroom	Doha	English	4,750
11–15 Sep 2028	5-day classroom	Istanbul	English	4,750
14–18 Jan 2029	5-day classroom	Jeddah	Arabic	4,750
12–16 Mar 2029	5-day classroom	Vienna	English	4,750

Dates	Format	City	Language	Fee (USD)
7–11 May 2029	5-day online	Live online	English	2,950
20–31 Aug 2029	10-day classroom	Geneva	English	8,950
10–21 Feb 2030	10-day classroom	Doha	English	8,950
14–18 Jul 2030	5-day classroom	Cairo	English	4,750
15–19 Sep 2030	5-day classroom	Amman	Arabic	4,750
9–20 Dec 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/