Garnet
Garnet Global Training Center

GGT-CH-112

Chemical & Process Engineering **New from 2028**

Bio-Based Chemicals & Biofuels

الكيماويات الحيوية والوقود الحيوي

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

Overview

Bio-Based Chemicals & Biofuels 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 Bio-Based Chemicals & Biofuels to real tasks.
- Share good practice with your team.
- Use the right tools, checks and calculations step by step.
- Diagnose common problems and identify root causes.
- Interpret data and results correctly and act on them.

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 Bio-Based Chemicals & Biofuels: principles and standards

- Catalysts and reactions
- Hands-on workshop on a workplace challenge

Day 2 Methods and tools in practice

- Troubleshooting
- Mass and energy balances

Day 3 Diagnosis and problem solving

- Unit operations
- Common mistakes and how to avoid them

Day 4 Quality, safety and documentation

- Process control
- Regional and international case studies

Day 5 Workshop, assessment and action plan

- Simulation and optimisation
- Checklists and templates to take away

10-day outline

Day 1 Bio-Based Chemicals & Biofuels: principles and standards

- Catalysts and reactions
- Hands-on workshop on a workplace challenge

Day 2 Methods and tools in practice

- Troubleshooting
- Mass and energy balances

Day 3 Diagnosis and problem solving

- Unit operations
- Common mistakes and how to avoid them

Day 4 Quality, safety and documentation

- Process control
- Regional and international case studies

Day 5 Workshop, assessment and action plan

- Simulation and optimisation
- 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)
11–15 Jun 2028	5-day classroom	Doha	English	4,750
4–15 Sep 2028	10-day classroom	Dubai	Arabic	8,950
9–13 Oct 2028	5-day classroom	Kuala Lumpur	English	4,750
11–22 Dec 2028	10-day online	Live online	English	5,450
7–11 Jan 2029	5-day classroom	Amman	Arabic	4,750
5–16 Feb 2029	10-day classroom	Singapore	English	8,950
7–11 May 2029	5-day online	Live online	Arabic	2,950
17–21 Dec 2029	5-day classroom	Casablanca	English	4,750
21 Jan – 1 Feb 2030	10-day online	Live online	Arabic	5,450

Dates	Format	City	Language	Fee (USD)
5–9 May 2030	5-day classroom	Riyadh	English	4,750
17–21 Jun 2030	5-day classroom	Vienna	English	4,750
11–22 Nov 2030	10-day classroom	Kuala Lumpur	English	8,950

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