Garnet
Garnet Global Training Center

GGT-HV-102

HVAC, Refrigeration & Building Services

HVAC System Design

تصميم أنظمة التكييف

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

Overview

HVAC System Design turns established good practice into step-by-step methods that participants rehearse in exercises and then apply at work. Design, operate and maintain the cooling, ventilation and plumbing systems that keep buildings working. 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 HVAC System Design 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

MEP engineers, HVAC technicians, facility engineers and building services consultants. Practitioners with one to five years of experience benefit most.

Key topics

- Psychrometrics and load calculation
- Refrigeration cycles
- Air distribution and ventilation
- Controls and BMS
- Energy efficiency
- Commissioning and maintenance

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 HVAC System Design: principles and standards
- Controls and BMS
- Group discussion and peer review

Day 2 Methods and tools in practice
- Energy efficiency
- Commissioning and maintenance

Day 3 Diagnosis and problem solving
- Psychrometrics and load calculation
- Measurement and reporting

Day 4 Quality, safety and documentation
- Refrigeration cycles
- Hands-on workshop on a workplace challenge

Day 5 Workshop, assessment and action plan
- Air distribution and ventilation
- Common mistakes and how to avoid them

10-day outline

Day 1 HVAC System Design: principles and standards
- Controls and BMS
- Group discussion and peer review

Day 2 Methods and tools in practice
- Energy efficiency
- Commissioning and maintenance

Day 3 Diagnosis and problem solving
- Psychrometrics and load calculation
- Measurement and reporting

Day 4 Quality, safety and documentation
- Refrigeration cycles
- Hands-on workshop on a workplace challenge

Day 5 Workshop, assessment and action plan
- Air distribution and ventilation
- Common mistakes and how to avoid them

Day 6 Advanced techniques and specialist practice
- Complex cases in depth
- Regional and international case studies

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
- Checklists and templates to take away

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)
14–18 Jun 2027	5-day online	Live online	English	2,950
6–10 Sep 2027	5-day classroom	Abu Dhabi	English	4,750
10–14 Oct 2027	5-day classroom	Riyadh	Arabic	4,750
12–23 Dec 2027	10-day classroom	Muscat	English	8,950
5–16 Mar 2028	10-day classroom	Doha	Arabic	8,950
14–18 May 2028	5-day classroom	Kuwait City	English	4,750
4–8 Sep 2028	5-day classroom	Vienna	English	4,750
18–29 Dec 2028	10-day online	Live online	English	5,450
12–16 Feb 2029	5-day classroom	Dubai	Arabic	4,750
13–17 May 2029	5-day classroom	Cairo	English	4,750

Dates	Format	City	Language	Fee (USD)
9–13 Jul 2029	5-day online	Live online	Arabic	2,950
10–21 Sep 2029	10-day classroom	Geneva	English	8,950
3–7 Feb 2030	5-day classroom	Cairo	Arabic	4,750
1–12 Sep 2030	10-day classroom	Manama	Arabic	8,950
4–8 Nov 2030	5-day classroom	Dubai	Arabic	4,750
16–27 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/