Garnet
Garnet Global Training Center

GGT-MM-118

Mechanical, Maintenance & Reliability

Piping Systems Design & Stress Analysis

تصميم أنظمة الأنابيب وتحليل الإجهادات

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

Overview

Piping Systems Design & Stress Analysis turns established good practice into step-by-step methods that participants rehearse in exercises and then apply at work. Keep equipment running longer, fail less and plan maintenance on evidence instead of habit. 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

- Apply the methods and standards of Piping Systems Design & Stress Analysis 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

Mechanical and maintenance engineers, reliability specialists, planners and workshop supervisors. Practitioners with one to five years of experience benefit most.

Key topics

- Failure modes and degradation mechanisms
- Condition monitoring techniques
- Maintenance strategy and planning
- Spare parts and work order discipline
- Reliability metrics: MTBF, MTTR, OEE
- CMMS data and continuous improvement

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 Piping Systems Design & Stress Analysis: principles and standards

- CMMS data and continuous improvement
- Measurement and reporting

Day 2 Methods and tools in practice

- Failure modes and degradation mechanisms
- Condition monitoring techniques

Day 3 Diagnosis and problem solving

- Maintenance strategy and planning
- Hands-on workshop on a workplace challenge

Day 4 Quality, safety and documentation

- Spare parts and work order discipline
- Common mistakes and how to avoid them

Day 5 Workshop, assessment and action plan

- Reliability metrics: MTBF, MTTR, OEE
- Regional and international case studies

10-day outline

Day 1 Piping Systems Design & Stress Analysis: principles and standards

- CMMS data and continuous improvement
- Measurement and reporting

Day 2 Methods and tools in practice

- Failure modes and degradation mechanisms
- Condition monitoring techniques

Day 3 Diagnosis and problem solving

- Maintenance strategy and planning
- Hands-on workshop on a workplace challenge

Day 4 Quality, safety and documentation

- Spare parts and work order discipline
- Common mistakes and how to avoid them

Day 5 Workshop, assessment and action plan

- Reliability metrics: MTBF, MTTR, OEE
- 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)
14–25 Mar 2027	10-day classroom	Jeddah	English	8,950
19–23 Jul 2027	5-day classroom	Dubai	Arabic	4,750
20–24 Sep 2027	5-day online	Live online	English	2,950
4–8 Oct 2027	5-day classroom	London	English	4,750
7–11 May 2028	5-day classroom	Muscat	Arabic	4,750
4–15 Sep 2028	10-day online	Live online	Arabic	5,450
2–13 Oct 2028	10-day classroom	Geneva	English	8,950
17–21 Dec 2028	5-day classroom	Cairo	English	4,750
11–15 Feb 2029	5-day classroom	Doha	English	4,750

Dates	Format	City	Language	Fee (USD)
2–13 Apr 2029	10-day classroom	Kuala Lumpur	English	8,950
4–8 Jun 2029	5-day classroom	Abu Dhabi	English	4,750
12–16 Nov 2029	5-day online	Live online	Arabic	2,950
11–22 Feb 2030	10-day classroom	Dubai	English	8,950
14–18 Jul 2030	5-day classroom	Riyadh	English	4,750
10–14 Nov 2030	5-day classroom	Jeddah	English	4,750
2–13 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/