Garnet
Garnet Global Training Center

GGT-PG-119

Power Generation & Utilities

Power Plant Fundamentals

أساسيات محطات توليد الكهرباء

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

Overview

Power Plant Fundamentals is designed for people who are new to the subject, or who need a structured refresher before taking on more responsibility. Operation and maintenance of power plants, grids and utility services. 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 Power Plant Fundamentals.
- Communicate confidently with specialists and colleagues.
- Plan the next steps in your own learning.
- Recognise the main hazards, errors and misconceptions newcomers face.
- Carry out basic tasks correctly using simple checklists and tools.

Who should attend

Power plant engineers, operators, utility planners and grid specialists. No prior experience is required; it also suits new hires, graduates and staff moving into this field.

Key topics

- Thermodynamics and plant performance
- Boilers, turbines and generators
- Grid operation and dispatch
- Reliability and outage planning
- Emissions and environmental compliance
- Plant case studies

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 Power Plant Fundamentals
- Plant case studies
- Regional and international case studies

Day 2 Core concepts and terminology
- Thermodynamics and plant performance
- Boilers, turbines and generators

Day 3 Basic methods and tools
- Grid operation and dispatch
- Checklists and templates to take away

Day 4 Working safely and correctly
- Reliability and outage planning
- Group discussion and peer review

Day 5 Practical exercises and review
- Emissions and environmental compliance
- Measurement and reporting

10-day outline

Day 1 Introduction to Power Plant Fundamentals
- Plant case studies
- Regional and international case studies

Day 2 Core concepts and terminology
- Thermodynamics and plant performance
- Boilers, turbines and generators

Day 3 Basic methods and tools
- Grid operation and dispatch
- Checklists and templates to take away

Day 4 Working safely and correctly
- Reliability and outage planning
- Group discussion and peer review

Day 5 Practical exercises and review
- Emissions and environmental compliance
- Measurement and reporting

Day 6 Advanced techniques and specialist practice
- Complex cases in depth
- Hands-on workshop on a workplace challenge

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
- Common mistakes and how to avoid them

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)
3–14 Jan 2027	10-day classroom	Riyadh	English	8,950
8–12 Feb 2027	5-day online	Live online	English	2,950
10–14 May 2027	5-day classroom	Dubai	English	4,750
15–19 Nov 2027	5-day classroom	Istanbul	English	4,750
13–17 Mar 2028	5-day classroom	London	English	4,750
12–23 Jun 2028	10-day classroom	Dubai	English	8,950
3–7 Sep 2028	5-day classroom	Jeddah	English	4,750
4–15 Dec 2028	10-day online	Live online	Arabic	5,450
5–16 Feb 2029	10-day classroom	Casablanca	Arabic	8,950
9–13 Jul 2029	5-day classroom	Abu Dhabi	Arabic	4,750

Dates	Format	City	Language	Fee (USD)
20–24 Aug 2029	5-day online	Live online	Arabic	2,950
17–21 Sep 2029	5-day classroom	Amsterdam	English	4,750
4–15 Feb 2030	10-day online	Live online	Arabic	5,450
3–14 Mar 2030	10-day classroom	Jeddah	English	8,950
2–6 Jun 2030	5-day classroom	Doha	Arabic	4,750
8–12 Jul 2030	5-day classroom	Kuala Lumpur	English	4,750

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