



*Training Course:
HVAC Design, Operation, and Maintenance*

*1 - 5 August 2027
Cairo (Egypt)*

Training Course: HVAC Design, Operation, and Maintenance

Training Course code: EN234601 From: 1 - 5 August 2027 Venue: Cairo (Egypt) - Training Course Fees: 4410 € Euro

Introduction

HVAC systems are vital for ensuring thermal comfort, indoor air quality, and energy efficiency in buildings. Effective design, proper operation, and structured maintenance are essential to achieve optimal performance, reduce energy consumption, and extend equipment lifespan.

This program, designed by Global Horizon Training Center, equips participants with comprehensive knowledge and practical skills to design, operate, and maintain HVAC systems in accordance with industry standards and best practices.

Course Objectives

By the end of this program, participants will be able to:

- Understand HVAC system design principles and configurations
- Perform heating and cooling load calculations
- Select appropriate HVAC equipment and components
- Operate HVAC systems efficiently and safely
- Implement preventive and predictive maintenance strategies
- Diagnose and troubleshoot system issues
- Improve energy efficiency and system performance
- Ensure compliance with safety and environmental standards

Target Audience

This program is designed for:

- Mechanical and HVAC Engineers
- Facility and Maintenance Engineers
- Building Services Professionals
- HVAC Technicians and Supervisors
- Energy and Facility Managers
- Professionals involved in building operations and maintenance

Outline

Day 1: Fundamentals of HVAC Design

- Overview of HVAC systems and configurations
- Thermal comfort and environmental conditions
- Heat transfer fundamentals
- Introduction to load calculations
- HVAC design standards and guidelines

Day 2: System Design and Equipment Selection

- Cooling and heating load calculations
- Equipment sizing and selection
- Air conditioning systems chillers, DX systems
- Duct design and air distribution
- Ventilation and indoor air quality considerations

Day 3: HVAC System Operation

- Operation of HVAC components chillers, boilers, AHUs
- Control systems and automation
- System performance monitoring
- Energy management and efficiency
- Operational best practices

Day 4: Maintenance and Troubleshooting

- Preventive and predictive maintenance strategies
- Inspection and servicing of HVAC equipment
- Identifying and resolving common faults
- Maintenance planning and scheduling
- Safety procedures and compliance

Day 5: Optimization, Energy Efficiency, and Case Studies

- Energy-saving techniques and optimization
- Performance evaluation and KPIs
- Retrofitting and system upgrades
- Sustainability and environmental considerations
- Case studies and real-world applications

Registration form on the Training Course: HVAC Design, Operation, and Maintenance

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Complete & Mail or fax to Global Horizon Training Center (GHTC) at the address given below

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Payment Method

- ☐ Please find enclosed a cheque made payable to Global Horizon
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