



*Training Course:  
Fundamentals of HVAC*

*4 - 8 April 2027  
Cairo (Egypt)*

## Training Course: Fundamentals of HVAC

Training Course code: EN234600 From: 4 - 8 April 2027 Venue: Cairo (Egypt) - Training Course Fees: 4410 € Euro

### Introduction

Heating, Ventilation, and Air Conditioning HVAC systems are essential for maintaining indoor comfort, air quality, and energy efficiency in residential, commercial, and industrial buildings. Understanding HVAC fundamentals is the foundation for proper system design, operation, and maintenance.

This program, designed by Global Horizon Training Center, equips participants with the core knowledge and practical understanding required to work effectively with HVAC systems in real-world applications.

### Course Objectives

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

- Understand basic HVAC principles and system functions
- Identify key components of HVAC systems
- Explain heating, cooling, and ventilation processes
- Interpret basic HVAC system layouts and configurations
- Apply fundamental concepts of load and airflow
- Recognize common system issues and basic troubleshooting methods
- Ensure proper indoor air quality and safety practices
- Support efficient operation of HVAC systems

### Target Audience

This program is designed for:

- Mechanical and HVAC Engineers
- Facility and Maintenance Personnel
- Building Services Technicians
- Supervisors and Technical Staff
- Entry-level professionals in HVAC field
- Individuals seeking foundational HVAC knowledge

## Outline

### Day 1: Introduction to HVAC Systems

- Overview of HVAC and its applications
- Thermal comfort and environmental factors
- Components of HVAC systems
- Types of HVAC systems
- Basic system configurations

### Day 2: Heating and Cooling Principles

- Heat transfer fundamentals
- Heating systems and equipment
- Cooling systems and refrigeration cycle
- Air conditioning systems overview
- System efficiency basics

### Day 3: Ventilation and Air Distribution

- Ventilation principles and requirements
- Air distribution systems and ductwork
- Indoor air quality IAQ
- Air filtration and purification
- Airflow balancing basics

### Day 4: Basic HVAC Design Concepts

- Introduction to load calculations
- Cooling and heating load basics
- Equipment selection fundamentals
- System layout and design considerations
- Energy efficiency principles

### Day 5: Operation, Maintenance, and Troubleshooting

- HVAC system operation practices
- Preventive maintenance basics
- Identifying common faults
- Basic troubleshooting techniques
- Case studies and practical examples

## Registration form on the Training Course: Fundamentals of HVAC

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

### Delegate Information

Full Name (Mr / Ms / Dr / Eng): .....  
Position: .....  
Telephone / Mobile: .....  
Personal E-Mail: .....  
Official E-Mail: .....

### Company Information

Company Name: .....  
Address: .....  
City / Country: .....

### Person Responsible for Training and Development

Full Name (Mr / Ms / Dr / Eng): .....  
Position: .....  
Telephone / Mobile: .....  
Personal E-Mail: .....  
Official E-Mail: .....

### Payment Method

- ☐ Please find enclosed a cheque made payable to Global Horizon
- ☐ Please invoice me
- ☐ Please invoice my company

### Easy Ways To Register

Telephone:  
+201095004484 to  
provisionally reserve your  
place.

Fax your completed  
registration  
form to: +20233379764

E-mail to us :  
info@gh4t.com  
or training@gh4t.com

Complete & return the  
booking form with cheque  
to: Global Horizon  
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Giza, Giza Governorate,  
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