

HVAC Systems for Hospitals: Design, Operation & Maintenance





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Ref: 32105_138571 Date: 27 Apr - 01 May 2026 Location: Accra (Ghana) Fees: 3300 Euro

Course Description

This intensive 5-day course provides a comprehensive overview of HVAC systems in hospital environments. Participants will learn about the unique requirements of healthcare facilities, including infection control, air quality standards, and energy efficiency. The course covers design principles, operation strategies, and maintenance best practices for hospital HVAC systems.

Learning Objectives

- Understand the critical role of HVAC in infection control and patient safety
- Master design principles for healthcare facility HVAC systems
- Learn strategies for energy-efficient operation of hospital HVAC systems
- Develop skills in troubleshooting and maintaining complex healthcare HVAC systems
- Gain knowledge of relevant standards and regulations for hospital HVAC

Course Modules

Day 1: Introduction to Hospital HVAC Systems

- Overview of healthcare facility requirements
- Infection control and air quality standards
- HVAC system components in hospitals
- Regulatory framework and compliance

Day 2: Design Principles for Hospital HVAC

- Airflow and pressure relationships
- Filtration and air cleaning technologies
- Temperature and humidity control
- Ventilation requirements for different hospital areas

Day 3: Energy Efficiency and Sustainability

- · Energy-saving strategies for hospital HVAC
- Heat recovery systems
- Building automation and control systems
- Sustainable design practices

Day 4: Operation and Maintenance

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- Commissioning and testing procedures
- Preventive maintenance strategies
- Troubleshooting common HVAC issues
- Documentation and record-keeping

Day 5: Advanced Topics and Case Studies

- Isolation room HVAC design
- Operating room air distribution
- Retrofitting existing hospital HVAC systems
- Case studies and best practices

Practical Wins for Participants

- Ability to design HVAC systems that meet stringent healthcare standards
- Skills to optimize hospital HVAC systems for energy efficiency
- Expertise in maintaining and troubleshooting complex healthcare HVAC systems
- Knowledge to ensure compliance with relevant regulations and standards



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