



Health, Safety and Environment

## Advanced Industrial Hygiene

# Course Introduction

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## Industrial Hygiene

This Advanced Industrial Hygiene training program is designed to provide participants with comprehensive knowledge and advanced skills in industrial hygiene. Over five days, participants will delve into advanced concepts such as exposure assessment techniques, hazard recognition, control measures, and occupational health management systems. The course will also cover emerging technologies, epidemiological methods, and psychosocial factors in occupational health. Through a blend of theoretical instruction and practical exercises, participants will gain the expertise needed to address complex industrial hygiene challenges and ensure the health and safety of workers in diverse industrial settings.

## Target Audience

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- This course is suitable for industrial hygienists, safety professionals, environmental health specialists, occupational health practitioners, and anyone involved in ensuring the health and safety of workers in industrial environments.

# Learning Objectives

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- Gain advanced understanding of industrial hygiene principles and practices.
- Learn advanced techniques for hazard recognition, exposure assessment, and control.
- Develop proficiency in utilizing engineering controls and emerging technologies for exposure reduction.
- Enhance skills in occupational health management, surveillance, and epidemiology.
- Explore advanced topics in industrial hygiene, such as psychosocial factors in occupational health.

## Course Outline

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- **DAY 01**

- Fundamentals of Advanced Industrial Hygiene**

- Introduction to Advanced Industrial Hygiene
    - Overview of advanced concepts and practices in industrial hygiene
    - Importance of advanced industrial hygiene in the workplace
    - Regulatory framework and compliance requirements (OSHA, ACGIH, etc.)
    - Advanced Exposure Assessment Techniques
    - Sampling strategies for complex exposures
    - Use of advanced monitoring equipment (real-time monitoring, passive samplers, etc.)
    - Data interpretation and exposure assessment methodologies

- **Day 02**

- Hazard Recognition and Control**

- Advanced Chemical Hazard Recognition
    - Identification of emerging chemical hazards

- Recognition of low-level exposures and long-term health effects
- Risk communication and management strategies
- Advanced Physical and Biological Hazard Recognition
- Identification of physical hazards (noise, vibration, radiation, etc.)
- Recognition of biological hazards (bioaerosols, infectious agents, etc.)
- Control measures and engineering solutions for mitigating hazards

### • Day 03

#### **Advanced Exposure Controls and Engineering Solutions**

- Engineering Controls for Hazard Mitigation
- Design and implementation of advanced engineering controls
- Ventilation system design and optimization
- Use of containment systems and enclosures for hazardous materials
- Emerging Technologies in Exposure Control
- Innovative technologies for exposure reduction (nanotechnology, robotics, etc.)
- Integration of digital tools and automation for monitoring and control
- Future trends in exposure control and workplace safety

### • Day 04

#### **Occupational Health Management and Surveillance**

- Occupational Health Management Systems
- Implementation of comprehensive occupational health programs
- Role of occupational health management in promoting worker health and safety
- Integration of industrial hygiene into occupational health management systems
- Occupational Health Surveillance and Epidemiology
- Utilization of epidemiological methods in occupational health surveillance
- Analysis and interpretation of occupational health data
- Identifying trends and patterns to inform exposure control strategies

### • Day 05

#### **Advanced Topics in Industrial Hygiene**

- Advanced Risk Communication and Management
- Strategies for effective communication of complex risks
- Engaging stakeholders and fostering a culture of safety
- Crisis communication and management in industrial hygiene incidents

- Occupational Health Surveillance and Epidemiology
- Utilization of epidemiological methods in occupational health surveillance
- Analysis and interpretation of occupational health data
- Identifying trends and patterns to inform exposure control strategies

## Confirmed Sessions

FROM	TO	DURATION	FEES	LOCATION
June 23, 2025	June 27, 2025	5 days	4250.00 \$	UAE - Dubai
Sept. 29, 2025	Oct. 3, 2025	5 days	2150.00 \$	Virtual - Online
Dec. 22, 2025	Dec. 26, 2025	5 days	4250.00 \$	UAE - Dubai