Dust and Air Quality Control Training Course

Professional Development Training Course Outline

Category	General Training	**Duration**	5 Days
Base Fee	$1,500 USD	**Delivery Mode**	Online / On-site Hybrid

Course Introduction

Dust and Air Quality Control Training Course is designed to equip professionals with advanced knowledge in air pollution control, particulate matter management, fugitive dust suppression, industrial hygiene, and ESG compliance. The course integrates global standards such as OSHA regulations, ISO 14001 Environmental Management Systems, and modern real-time air quality monitoring technologies to ensure workplaces meet sustainability and safety benchmarks.

With increasing global focus on climate change mitigation, carbon footprint reduction, and green compliance strategies, organizations are required to adopt intelligent dust control systems and predictive air quality monitoring solutions. This training empowers participants to implement IoT-based air monitoring systems, smart dust suppression technologies, and environmental risk assessment frameworks, ensuring safer working environments, regulatory compliance, and improved operational sustainability performance.

Programme Curriculum

Dust and Air Quality Control Training Course

Introduction

Dust and Air Quality Control Training Course is designed to equip professionals with advanced knowledge in air pollution control, particulate matter management, fugitive dust suppression, industrial hygiene, and ESG compliance. The course integrates global standards such as OSHA regulations, ISO 14001 Environmental Management Systems, and modern real-time air quality monitoring technologies to ensure workplaces meet sustainability and safety benchmarks.

With increasing global focus on climate change mitigation, carbon footprint reduction, and green compliance strategies, organizations are required to adopt intelligent dust control systems and predictive air quality monitoring solutions. This training empowers participants to implement IoT-based air monitoring systems, smart dust suppression technologies, and environmental risk assessment frameworks, ensuring safer working

environments, regulatory compliance, and improved operational sustainability performance.

Course Duration

5 days

Course Objectives

1. Understand fundamentals of air quality management and environmental compliance
2. Apply OSHA air safety standards and ISO 14001 frameworks
3. Identify sources of PM2.5, PM10, and fugitive emissions
4. Implement industrial dust suppression techniques
5. Conduct air quality risk assessments and hazard mapping
6. Use real-time air monitoring sensors and IoT systems
7. Develop sustainable pollution prevention strategies
8. Improve workplace occupational health and industrial hygiene
9. Design air filtration and ventilation control systems
10. Analyze carbon emissions and ESG reporting metrics
11. Implement green construction and clean manufacturing practices
12. Evaluate environmental impact assessments (EIA)
13. Strengthen compliance with global climate and sustainability regulations

Target Audience

1. Environmental Health & Safety (EHS) officers
2. Industrial engineers and plant managers
3. Construction site supervisors and project managers
4. Mining and quarry operation professionals
5. Environmental consultants and auditors
6. Sustainability and ESG reporting specialists
7. Government environmental regulators
8. HVAC and air filtration system technicians

Course Modules

Module 1: Fundamentals of Air Quality & Dust Pollution

- Overview of air pollutants, particulate matter, and emission sources
- Understanding PM2.5, PM10, and ultrafine particles
- Case Study: Urban air pollution crisis and mitigation strategies in industrial zones
- Introduction to air quality index (AQI) monitoring systems
- Impact of dust pollution on health, environment, and productivity

Module 2: Environmental Regulations & Compliance Standards

- Overview of OSHA, ISO 14001, and EPA guidelines
- Legal frameworks for industrial emissions control
- Case Study: Regulatory compliance failure in a manufacturing plant
- Environmental audits and inspection procedures
- Penalties and risk management for non-compliance

Module 3: Dust Control Technologies & Suppression Systems

- Water spraying, chemical suppressants, and foam systems
- Advanced fogging and misting technologies
- Case Study: Dust suppression in large-scale mining operations
- Engineering controls for construction sites
- Selection of cost-effective dust control systems

Module 4: Air Monitoring & IoT-Based Systems

- Deployment of real-time air quality sensors
- Integration of IoT platforms for environmental tracking
- Case Study: Smart city air monitoring network implementation
- Data analytics for pollution trend prediction
- Calibration and maintenance of monitoring devices

Module 5: Industrial Ventilation & Filtration Systems

- Design of HVAC and industrial ventilation systems
- HEPA and activated carbon filtration technologies
- Case Study: Air quality improvement in steel manufacturing plants
- Containment of hazardous airborne particles
- Energy-efficient ventilation solutions

Module 6: Risk Assessment & Environmental Impact Analysis

- Air pollution risk mapping techniques
- Environmental Impact Assessment (EIA) methodologies
- Case Study: Construction project environmental risk mitigation
- Occupational exposure limits and safety thresholds
- Mitigation planning for high-risk zones

Module 7: Sustainability, ESG & Carbon Management

- ESG frameworks and reporting standards
- Carbon footprint measurement and reduction strategies
- Case Study: Corporate sustainability transformation in logistics sector
- Green compliance and sustainability certification
- Net-zero emission roadmap development

Module 8: Emergency Response & Air Quality Crisis Management

- Air pollution emergency preparedness planning
- Crisis response for chemical and dust exposure incidents
- Case Study: Industrial fire and toxic smoke containment response
- Personal protective equipment (PPE) protocols
- Disaster recovery and environmental restoration strategies

Training Methodology

- Interactive lectures and presentations.
- Group discussions and brainstorming sessions.
- Hands-on exercises using real-world datasets.
- Role-playing and scenario-based simulations.

- Analysis of case studies to bridge theory and practice.
- Peer-to-peer learning and networking.
- Expert-led Q&A sessions.
- Continuous feedback and personalized guidance.

Register as a group from 3 participants for a Discount

Send us an email: info@fineskilltrainingcenter.org or call *+254769199797*

Certification

Upon successful completion of this training, participants will be issued with a globally- recognized certificate.

Tailor-Made Course

We also offer tailor-made courses based on your needs.

Key Notes

a. The participant must be conversant with English.

b. Upon completion of training the participant will be issued with an Authorized Training Certificate

c. Course duration is flexible and the contents can be modified to fit any number of days.

d. The course fee includes facilitation training materials, 2 coffee breaks, buffet lunch and A Certificate upon successful completion of Training.

e. One-year post-training support Consultation and Coaching provided after the course.

f. Payment should be done at least a week before commence of the training, to Fineskill Training Center account, as indicated in the invoice so as to enable us prepare better for you.

Upcoming Scheduled Sessions

Start Date	End Date	Location	Price
23 Nov 2026	27 Nov 2026	Online	$1,000
23 Nov 2026	27 Nov 2026	Physical	$1,500
23 Nov 2026	27 Nov 2026	Physical	$3,000
23 Nov 2026	27 Nov 2026	Physical	$3,000
23 Nov 2026	27 Nov 2026	Physical	$6,000
23 Nov 2026	27 Nov 2026	Physical	$4,500

Start Date	End Date	Location	Price
23 Nov 2026	27 Nov 2026	Physical	$6,000
23 Nov 2026	27 Nov 2026	Physical	$6,000

Ready to enroll or request a customized program? Book online or contact us:

Register Online Now

Email: info@fineskilltrainingcenter.com | Website: www.fineskilltrainingcenter.com