Indoor Environmental Quality (IEQ) Training Course

Professional Development Training Course Outline

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

Course Introduction

Indoor Environmental Quality (IEQ) is a critical discipline within modern building science, focusing on the health, comfort, and productivity of occupants in residential, commercial, and industrial environments. As buildings become more energy-efficient and airtight, the importance of maintaining optimal indoor air quality, thermal comfort, acoustics, lighting, and overall environmental balance has become a global priority. Indoor Environmental Quality (IEQ) Training Course is designed to equip professionals with advanced knowledge of IEQ assessment, monitoring technologies, green building standards, and sustainability-driven design strategies aligned with modern ESG (Environmental, Social, and Governance) frameworks.

The IEQ Training Course integrates cutting-edge industry practices, smart building technologies, and internationally recognized standards such as ASHRAE, WELL Building Standard, LEED certification, and ISO indoor environment guidelines. Participants will gain hands-on expertise in identifying indoor pollutants, optimizing ventilation systems, improving energy-efficient HVAC performance, and applying data-driven environmental monitoring solutions. This course is ideal for professionals aiming to enhance building performance, occupant wellness, and compliance with global sustainability trends in the built environment sector.

Programme Curriculum

Indoor Environmental Quality (IEQ) Training Course

Introduction

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Course Duration

5 days

Course Objectives

1. Understand Indoor Environmental Quality (IEQ) fundamentals and global standards
2. Analyze indoor air pollution sources and mitigation strategies
3. Apply WELL Building Standard & LEED IEQ credits
4. Evaluate thermal comfort optimization techniques
5. Assess HVAC system efficiency for air quality control
6. Implement smart building sensors for real-time IEQ monitoring
7. Identify volatile organic compounds (VOCs) and indoor toxins
8. Improve energy-efficient ventilation system design
9. Integrate IoT-based environmental monitoring systems
10. Enhance acoustic comfort and noise control strategies
11. Optimize daylighting and artificial lighting balance (circadian lighting)
12. Conduct IEQ audits and compliance reporting
13. Promote sustainable green building and ESG compliance strategies

Target Audience

1. HVAC Engineers & Technicians
2. Building Facility Managers
3. Architects & Interior Designers
4. Environmental Health & Safety Officers
5. Sustainability Consultants
6. Construction Project Managers
7. Real Estate Developers
8. Energy Auditors & Building Inspectors

Training Modules

Module 1: Introduction to Indoor Environmental Quality (IEQ)

- IEQ definition and global relevance
- Components: air, thermal, lighting, acoustics
- IEQ vs IAQ (Indoor Air Quality) distinction

- Global standards overview (ASHRAE, WHO)
- Role in sustainable construction
- **Case Study:** Analysis of IEQ performance in a certified LEED Platinum office building and its impact on employee productivity.

Module 2: Indoor Air Quality & Pollution Control

- Sources of indoor pollutants
- VOCs, CO?, PM2.5 impact analysis
- Air filtration technologies
- Ventilation effectiveness
- Air quality compliance standards
- **Case Study:** Office building retrofitting using HEPA filtration systems to reduce sick building syndrome.

Module 3: Thermal Comfort & Energy Efficiency

- Thermal comfort models (PMV/PPD)
- HVAC load optimization
- Adaptive comfort standards
- Climate-responsive building design
- Smart thermostat integration
- **Case Study:** Energy optimization in a commercial mall using smart HVAC zoning systems.

Module 4: Acoustic Comfort Management

- Noise pollution sources indoors
- Sound insulation materials
- Acoustic design principles
- Workplace productivity and noise
- Building acoustics measurement tools
- **Case Study:** Corporate office redesign improving acoustic privacy and reducing noise complaints by 60%.

Module 5: Lighting Quality & Circadian Design

- Natural daylight optimization
- Artificial lighting systems
- Circadian rhythm-based lighting
- Energy-efficient LED systems
- Light pollution control
- **Case Study:** Hospital implementing circadian lighting to improve patient recovery rates.

Module 6: Smart IEQ Monitoring Systems (IoT & AI)

- Smart sensors for IEQ tracking
- Real-time data analytics
- AI-based predictive maintenance
- Cloud-based monitoring systems
- Dashboard visualization tools
- **Case Study:** Smart campus deployment of IoT sensors for real-time air quality optimization.

Module 7: Green Building Standards & Certification

- LEED, WELL, BREEAM frameworks
- ESG compliance in construction
- Sustainable material selection
- Energy benchmarking systems
- Certification process workflow
- **Case Study:** High-rise green building achieving WELL Gold certification through IEQ upgrades.

Module 8: IEQ Risk Assessment & Occupational Health

- Indoor hazard identification
- Risk assessment methodologies
- Occupational exposure limits
- Health impact analysis
- Preventive maintenance strategies
- **Case Study:** Industrial facility reducing respiratory illness cases through IEQ risk mitigation program.

Training Methodology

This course employs a participatory and hands-on approach to ensure practical learning, including:

- 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
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:

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