Syllabus

A comprehensive training certificate aimed at practitioners to assist with a dynamic understanding of indoor air quality and the effects of health, comfort and productivity.

Managing indoor air quality is challenging because it crosses many disciplinary boundaries, including architecture, building science, occupational health and human behaviour; and cover many types of variables relating to buildings, including their layout and technology, the organisations which occupy them, the management styles and the people themselves. Due to the importance of energy conservation, buildings are using air more efficiently within sealed buildings. As we commonly spend more than 90% of our time indoors, the air we breathe is critical to our health, comfort and productivity.

The course will provide the participant with practical guidance on how to achieve effective air quality in the workplace for optimum working conditions. It will explore the methods used to identify, assess and monitor the effectiveness of their ventilation system and will outline legislation and best practice for effective ventilation. The course will incorporate a comprehensive melange of technical disciplines which will assist the attendee to transfer technical knowledge to practical application.

Learning Outcomes

- Outline the scope and nature of indoor air quality;
- Explain the benefits of good IAQ and the consequences of poor IAQ;
- Describe the types and components of ventilation systems;
- Outline the process for investigating IAQ complaints;
- Identify the sources of contamination /preventive measures to adopt;
- Describe techniques and methodology for surveying and monitoring;
- Conduct risk assessments of IAQ.

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Element One – Scope and nature of indoor air quality

- An overview of indoor air quality (IAQ);
- Understanding the difference between SBS, BRI and MCS;
- Legislation and guidance.

Element Two - Consequences of Poor IAQ

- Human health effects (physical and psychological);
- Pathway of toxins;;
- Different parts of the respiratory zone;
- Body Burden;
- Population at risk.

Element Three - Ventilation

- Understanding ventilation;
- Mechanical versus natural ventilation;
- Different types and components of ventilation systems.

Element Four – Fundamental components of IAQ

- Understanding temperature;
- Understanding humidity;
- Understanding carbon dioxide;

- (Each section to explore composition about the component, such as source, health risks, comfort factors and influence on population).

Element Five - Types of pollutions

Divided into organic and inorganic pollutants, physical pollutants, naturally occurring pollutants and biological - (VOCs, Molds, allergens, dusts/fibres):

- Details/composition about the substance;
- Source of pollutant;
- Methods to measure;
- Health risks, comfort factors and influence on population;
- Effective control measures.

Element Six – Investigating IAQ concerns

- Challenges to acknowledging IAQ;
- Investigating complaints;
- Exploring exposure and health effects;
- Occupant's questionnaire.

Element Seven - Proactive IAQ management

- Methodology of sampling;
- Types of instruments for measuring IAQ;
- Selecting equipment.

Element Eight - Communication

- IAQ Communication;
- Acknowledge, Articulate, Assess, Act;
- Building Air Quality Action Plan.