



# **HSE148** Industrial Hygiene & Occupational Health















## **Course Introduction:**

Occupational Risk Management is a modern fast moving subject. It covers all aspects of risk associated with the worker, the work environment and its effects on health. There are many interfaces with other health and safety professionals in today's modern industries. The Occupational Health Professional and Risk Managers must be aware of the expertise available to reduce risk within the workplace to an acceptable level; this includes appreciating the environment and the placement of the most suitable person to the job.

Today's Occupational Health and Safety Professionals take the pro-active approach by trying to prevent ill-health and accidents before they happen.

## **Course Objectives:**

#### Upon successful completion of this course, the delegates will be able to:

- Understand the concept and apply knowledge on industrial hygiene and occupational health
- > Introduce the basic principles of occupational health and hygiene
- Recognize the types of chemical agents and hazardous substances dangerous to health and identify on how to assess, monitor and control these hazardous substances

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- Use of personal protective equipment
- Identify physical agents and discuss noise, vibration and health stress and strain
- > Determine the hazards of radiation and how to control in the workplace
- > Explain biological agents and ergonomics
- Manage and promote occupational health program

## The promotion and maintenance of the physical, mental and social wellbeing of the workforce, this is achieved by:

- The prevention of departures from health due to working conditions.
- ➤ The protection from risks resulting from factors adverse to health.
- > This can be summed up by the expression "The adaptation of work to man and of each man to his job"

### Who Should Attend?

This course will be of interest to occupational health professionals including occupational health doctors and nurses including industrial first aiders. It would also be of interest to any other medical/para-medical personnel working in an industrial environment such as oil/gas industry

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medics. Other Professionals operating in occupational risk management would benefit from this course such as health & safety managers/operatives, loss control officers, safety representatives, personnel and general management.

## **Course Outline:**

#### Day 1:

#### Pre-Test

#### **Introduction to Occupational Health and Hygiene**

- Introduction to the basic principles of occupational health and hygiene
- The effects of work on health
- Review of roles and functions of occupational health and safety professionals
- Occupational Safety and Health management
- The fundamental principles of establishing a safe system of work
- Introduction to health risk assessment
- Health screening and surveillance -Basic principles
- Biological monitoring
- Identification of occupational hygiene control strategies

#### Day 2:

#### **Chemical Agents**

- Chemical hazards at work
- Introduction to toxicology
- Control of substances hazardous to health or Training & Development
- Assessment and monitoring of hazardous substances
- Occupational exposure limits
- Controlling hazardous substances
- Introduction to local exhaust ventilation design
- Personal protective equipment

#### Day 3:

#### **Physical Agents**

Noise - Its measurement, evaluation and control

- Effects of noise on human health
- Establishing a hearing conservation program
- Principles of undertaking a noise survey

Vibration - its measurement, evaluation and control

• Effects of hand arm and whole body vibration on human health

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- Assessing human vibration exposures
- Controlling vibration

#### Heat Stress and Strain

- · Effects of heat
- Evaluating heat stress
- Controlling the risks from heat
- Introduction to thermal comfort

#### Day 4:

#### Radiation, Biological Agents and Ergonomics

- Hazards from radiation covering both ionizing and non-ionizing sources
- Controlling radiation hazards
- Biological hazards in the workplace
- Managing the risk of legionnaires' disease
- A review of the basic principles of food safety and food hygiene
- Introduction to occupational ergonomics
- Manual handling and musculoskeletal risks
- Assessment and control of risks during manual handling operations
- Display screen equipment

#### Day 5:

- Review Managing occupational health risks
- Promoting occupational health program
- Development of action plans
- Extended exercise case study

#### **Post Test**

## **Course Certificate:**

**International Center for Training & Development (ICTD)** will award an internationally recognized certificate(s) for each delegate on completion of training.

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## **Course Methodology:**

A variety of methodologies will be used during the course that includes:

- (30%) Based on Case Studies
- (30%) Techniques

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- (30%) Role Play
- (10%) Concepts
- Pre-test and Post-test
- Variety of Learning Methods
- Lectures
- Case Studies and Self Questionaires
- Group Work
- Discussion
- Presentation

## **Course Fees:**

**To be advised as per the course location.** This rate includes participant's manual, Hand-outs, buffet lunch, coffee/tea on arrival, morning & afternoon of each day.

## **Course Timings:**

#### **Daily Course Timings:**

| 08:00 - 08:20         | Morning Coffee/Tea  |
|-----------------------|---|
| 08:20 - <b>1</b> 0:00 | First Session   |
| 10:00 - 10:20         | Recess (Coffee/Tea/Snacks)                                      |
| 10:20 - 12:20         | Second Session  |
| 12:20 - 13:30         | Recess (Coffee/Tea/Snacks)                                      |
| 13:30 - 15:00         | Last Session<br>International Centre For Training & Development |

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