



# HSE163

## Noise Control in Industry

## Course Introduction:

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Workers in many different industries are exposed to noise and vibration may present a risk to their health. Long term exposure to noise can result in hearing loss while exposure to vibration can cause harmful effects such as vibration white finger. Failure to control these risks can result in lost time due to ill health, worker dissatisfaction, reduced productivity and claims for compensation. Effective management of the risks from noise and vibration requires employers to understand the nature and degree of worker exposures. In many cases measurement of worker exposures is needed to achieve this. Where such measurements are needed it is important to ensure that a sensible strategy is adopted, appropriate techniques are used and the results are interpreted carefully. This course is designed to provide an understanding of the harmful effects associated with exposure to noise and vibration and equip organizations to undertake effective assessments of the risks they present in the workplace.

## Course Objectives:

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

- Understand the harmful effects of exposure to noise and vibration at work
- Understand the role of noise and vibration measurement techniques
- Identify the main techniques used to measure worker exposure to noise and vibration
- Develop strategies for noise and vibration exposure assessment surveys and monitoring program
- Select appropriate instruments to measure noise levels and assess worker exposures
- Conduct surveys in the workplace to assess risks from noise
- Develop hearing conservation program
- Select appropriate instruments for measuring vibration and assessing the risks from hand arm vibration and whole body vibration

## Who Should Attend?

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This course is designed for managers responsible for health and safety and for personnel who are responsible for the design and implementation of workplace assessment and monitoring program. This course is also suitable for personnel responsible for undertaking risk assessments for noise and vibration, occupational health personnel who wish to obtain a better understanding of the principles involved in the assessment and control of noise and vibration and managers wishing to reduce risk and liability for their organization through effective management of health risks.

# Course Outline:

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## Day 1:

### Pre-Test

- Properties of sound
- Definitions and measurements units - noise
- The ear and its response to sound

## Day 2:

- Noise exposure assessment strategies
- Conducting a noise survey
- Sound level meters
- Measurement of sound pressure level
- Frequency analysis
- Personal exposure assessment
- Personal Dosimetry

## Day 3:

- Interpreting data from noise surveys
- Noise exposure standards
- Using frequency analysis information to select hearing protection

## Day 4:

- Vibration – basic physics
- Definitions and measurement units – vibrations
- The effects of vibration on humans

## Day 5:

- Approaches to vibration exposure assessment
- Instrumentation for measuring vibration
- Assessing hand – arm vibration
- Assessing whole body vibration
- Vibration exposure standards

### Post Test

## Course Certificate:

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

## Course Methodology:

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

- (30%) Based on Case Studies
- (30%) Techniques
- (30%) Role Play
- (10%) Concepts
- Pre-test and Post-test
- Variety of Learning Methods
- Lectures
- Case Studies and Self Questionnaires
- 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 - 10:00 | First Session              |
| 10:00 - 10:20 | Coffee / Tea / Snacks      |
| 10:20 - 12:20 | Second Session             |
| 12:20 - 13:30 | Lunch Break & Prayer Break |
| 13:30 - 15:00 | Last Session               |