

Principles of Acoustics and the Measurement of Sound

Introduction

Course outline and Objectives

Basic Acoustic Principles

What is Sound, Noise?
Physical properties, parameters
Logarithms and dB notation
RMS vs Peak measurements
SPL descriptors, eg. Leq, SEL, etc.
Sound fields
Level vs Frequency
Frequency weighting and filters

Measurement Instrumentation

Microphone characteristics & applications
Sound level meters & standards
Frequency Analyzers – Serial / Parallel Calibration
SLM measurement considerations
Care of the Instruments

Application Examples

- Workplace Noise
Noise dosimetry-principles / practice
Hearing conservation program model
Machinery noise control
- Community Noise
Special equipment requirements
Statistical descriptors
Special purpose indices, Ldn, TNI
- Noise Control & Sound Intensity
Source-Path-Receiver concept
Noise source location



Who Should Attend

The course will be of particular interest to engineers, technicians and occupational hygiene personnel, with responsibility for correct measurement, analysis, diagnosis, and reporting of their data. Persons considering the procurement of a measurement platform will gain insight into current hardware and software features.

Registration

Registration closes two weeks before the course. Late registration will be accepted based on available space. The course fee includes lunch, coffee breaks, and a complete materials package. Xscala reserves the right to cancel any course in the event of insufficient registration.

Location & Time

Course location will be in your confirmation email two weeks prior to course. Registration starts at 0800h with class starting at 0830h – 1630h

Fee: \$425.00 CAD + GST