

BASIC ACOUSTICS I

Description

The objectives of this ½ day course are to provide basic principles of acoustics including sound pressure levels (decibels), sound power, frequency content, noise sources, sound propagation, measurements, and noise control. This course will develop and enhance the participants knowledge, concepts and principles in Acoustics, providing an opportunity to apply theory to practical situations about noise sources and their control. It introduces concepts and practical examples in measuring and controlling noise.

Topics include

- Describing the noise source: frequency, wavelength, frequency spectrum decibels, sound power level and directional characteristics, physical description of common noise sources, broad band and impulsive noise.
- Sound measurements including equipment used, broadband and spectral analysis including whole octave and 1/3 octave measurements, duration of measurements, averaging, accuracy, measurement techniques.
- Various examples of topics covered.
- Question and answer period.

Instructors

M. G. (Gary) Faulkner, Ph.D, P.Eng., is a professor of Mechanical Engineering at the University of Alberta and the President of ACI Acoustical Consultants Inc. of Edmonton. Dr. Faulkner has over 30 years of extensive consulting experience in acoustics and noise control.

Steven Bilawchuk, M.Sc. P.Eng., is a Partner and Engineering Consultant with ACI Acoustical Consultants Inc. of Edmonton. Mr. Bilawchuk is also an instructor for a senior Mechanical Engineering Course at the University of Alberta in Acoustics and Noise Control.