



Acoustics: The Invisible Material

AIA Course: CRUX2026.001

Course Description:

The central, elemental theme of the built world is the human experience. Sound is the primary means by which we communicate and a crucial part of how we experience the world around us. Acoustics is the intersection between those two realities. The nature of a built space's acoustics can have a significant impact on the user experience, either positive or negative, and sometimes the impact may go unnoticed.

Managed acoustics have the ability to support and even enhance the function of a space, therefore offering a positive impact to use and enjoyment. Conversely, unmanaged acoustics may compromise an intended use or even create a dangerous environment. By managing a space's acoustics, the health, safety, and welfare of the user may be not only protected but enhanced.

This course explains how managing acoustics can protect and enhance the health, safety, and enjoyment of the user. Participants in this course will learn strategies to manage the acoustic performance of a space according to the characteristics of forms and materials.

Learning Objectives

Participants will be able to differentiate between sound and acoustics by identifying how sound behaves within built environments.

Participants will be able to analyze how building materials influence sound behavior, including reflection, absorption, and transmission.

Participants will be able to assess the impact of acoustical conditions on occupant productivity, health, and communication in various building types.

Participants will be able to evaluate appropriate acoustic strategies for different space types based on performance goals.