



# **CEU Course Offering**

## Acoustical Design for Today's **Buildings**

Credits: 1 LU

Approved by: AIA/HSW, ASID, GBCI, IDS, IDC, IDCEC|HSW, IIDA & 54 State

Licensing Boards

#### **Acoustical Research Facility Tour**

Credits: 1 LU

Approved by: AIA/HSW

## **Cementitious Wood Fiber Ceiling** and Wall Solutions

Credits: 1 LU

Approved by: AIA, ASID, IDS, IDC, IDCE-

C/HSW, IIDA

## Cementitious Wood Fiber for Structural and Acoustical Roof Decks

# Credits: 1 LU

Approved by: AIA/HSW, IDCEC

# **Detailing Perimeters and Floating** Elements in the Ceiling Plane

Credits: 1 LU

Approved by: AIA/HSW, IDCEC

## Have you heard a great building lately? How someone experiences a building relies on the experience of all senses including sense of hearing. As soon as someone or something makes a sound, the acoustic design becomes evident. Poor architectural acoustics can negatively affect building occupants' concentration, comprehension, confidentiality, healing, and/or learning. By contrast, good sound qualities can add drama, vibrancy, and energy, enhancing the occupant experience. Join us to explore the many options available today that help architects design for acoustics without compromising their design vision.

This program is a guided tour of an NVLAP certified acoustical research facility. Participants will learn the construction means and methods of such a facility and will gain an understanding of the ASTM tests for NRC, CAC, STC, and AC. Groups will also learn how construction assemblies can affect the performance of a space, designing for optimum privacy or intelligibility as well as reverberation time.

This seminar provides an education on interior Cementitious Wood Fiber ceiling and wall solutions along with its applications. The seminar will discuss the role of cementitious wood fiber specialty ceilings in commercial buildings and will evaluate how aesthetic choices interact with performance, safety, and durability in a broad range of standard, custom, and one-of-a-kind design options. Participants will examine key performance attributes including fire performance, acoustics, and sustainability and will be able to recognize how the manufacturing process of cementitious wood fiber panels determines their appearance, performance, lead time, and cost.

The selection and specification of cementitious wood fiber (CWF) roof decks in combination with CWF wall treatments can help make projects more sustainable while enhancing the aesthetic and acoustics of challenging large volume spaces. This CES program will inform and educate the professional designer and specifier of how CWF roof decks can be utilized in design as an alternative to other roof deck options that form the building envelope and the foundation for an effective roof assembly in all climate zones. Participants will learn the product attributes of cementitious wood fiber materials and how product attributes like size, R value, fire performance help to create a safe, visual pleasing and acoustical environment to meet recommended standards for learning environments. They will also gain understanding of carbon reduction and how use of CWF decks can help speed construction as well as the products contributions to LEED certification.

Detailing Perimeters and Floating Elements in the Ceiling Plane" helps participants compare and contrast different types of perimeter and trim treatments along with the benefits and draw backs of the various solutions. This one-hour course identifies key spaces where perimeter treatment is functionally and visually critical to the finished design of the ceiling plane in commercial interiors. The course also describes integration with lighting and HVAC and outlines code-based guidelines to keep in mind when designing the ceiling plane perimeter.

For scheduling, please contact Zhely Van Essen, Director of Specialty Solutions, HB Build





# Healthy Design for Today & Tomorrow: Clean Air & Wellness from the Top Down

Credits: 1 LU

Approved by: AIA/HSW, ASID, IDS, IDC,

IDCEC|HSW, IIDA

The events of the past two years as related to the pandemic are redefining standards for health and safety protocols in all aspects of life, including indoor spaces. As employers, educators and building owners seek to reopen their facilities, they are looking for ways to meet the heightened expectations of their workers and occupants. Guiding these decisions are recommendations from industry organizations such as the American Society of Heating, Refrigerating and Air- Conditioning Engineers (ASHRAE), and the Environmental Protection Agency (EAP) which offer guidance on how changes to building operations, particularly HVAC systems, can reduce airborne exposures.

## IBC Seismic Code and Ceiling **Installation Requirements**

Credits: 11 U

Approved by: AIA/HSW, ASID, IDS, IDC,

IDCEC/HSW, IIDA

This 1-hour course offers an overview of the IBC seismic design categories classifications and the effect of soil type, location, and building types on design categories and their installation methods and details, including alternative ceiling suspension designs.

#### **Integrating Ceiling and Lighting Solutions**

Credits: 1 LU

Approved by: AIA/HSW, IDCEC

This one-hour seminar will focus on understanding the importance of pre-engineering ceiling and lighting integration. It will cover common construction issues caused by uncoordinated ceiling and lighting conditions. The course introduces and educates participants on the value associated with pre-engineered ceiling and lighting solutions, as well as the Health, Safety, and Wellness contributions of good lighting practices.

# Radiant Heating and Cooling with **Metal Ceilings**

Credits: 1 LU

Approved by: AIA/HSW

Radiant Heating and Cooling with Metal Ceilings is a one-hour course that presents an overview of how metal ceilings are used to deliver hydronic radiant heating and cooling as an alternative to forced-air heating ventilating and air conditioning systems. Sustainability, benefits such as improved indoor air quality, energy consumption savings, and improved acoustics are a few of the benefits outlined.

# **How to Specify Seamless Acoustical Ceilings**

Credits: 1 LU

Approved by: AIA/HSW, ASID, GBCI, IDS,

IDC, IDCEC/HSW, IIDA

Two major components of indoor environmental quality (IEQ) are aesthetics and acoustics. This course discusses ceiling systems that provide both qualities, leading to better health, safety, and well-being for occupants. It provides a historical exploration of ceiling systems that have evolved to meet occupant needs, incorporating materials that meet safety standards and exceed performance standards for sound absorption and speech intelligibility—all of which ultimately affect how people work, learn, heal, and play in ways that elevate the quality of their lives.

## Solving Healthcare Design Challenges with Ceiling Systems

Credits: 1 LU

Approved by: AIA/HSW, ASID, IDS, IDC,

IDCEC/HSW, IIDA

Solving Healthcare Design Challenges with Ceiling Systems identifies key challenges effecting healthcare today such as infection prevention and control, acoustics, and sustainable design. This seminar identifies and defines the design standards and guidelines for healthcare, including CDC Guidelines for Disinfection and Sterilization in Healthcare facilities, the FGI Guidelines for Design and Construction of Healthcare Facilities, and Green Guide for Healthcare. Learn evidence-based design strategies, how to select appropriate interior finishes, and implement a balanced acoustical design strategy.

#### **Specifying Metal Ceilings**

Credits: 1 LU

Approved by: AIA/HSW

Specifying Metal Ceilings" helps participants understand the attributes and benefits of using metal ceilings. This one- hour course identifies key segments and spaces where metal is being used today in commercial interiors, as well as its use in exterior applications. The course also describes the possibilities and limitations in specifying a variety of different sizes, shapes, and patterns.

For scheduling, please contact Zhely Van Essen, Director of Specialty Solutions, HB Build





#### Success in the Classroom Starts with Sound

Credits: 1 LU

Approved by: AIA/HSW, ASID, IDS, IDC,

IDCEC/HSW, IIDA

ments for students, as well as increase the overall comfort and well-being of all occupants. Acoustics in classrooms should be a priority for designers as ambient background noise and intruding sounds can be a major distraction and nuisance for both students and educators. Elements to consider when addressing the acoustic performance of a classroom include controlling reverberation, background noise, and sound isolation. This presentation will offer specific instruction for architects when specifying materials within the classroom environment to ensure current standards are met, and acoustic performance is maximized.

This presentation will provide architects and designers with a working knowledge of how current trends in acoustic design for classrooms can support improved learning environ-

#### The Advantages of Drywall Grid

Credits: 1 LU

Approved by: AIA, IDCEC

**Understanding Code-compliant Integrated Ceiling Solutions** 

Credits: 1 LU

Approved by: AIA/HSW

This one-hour seminar will focus on understanding the differences between traditionally framed drywall ceilings and pre-engineered drywall grid systems. We'll also discuss how to alleviate common pain points associated with framing flat and curved drywall ceilings.

This seminar will help you understand new installation systems available that navigate the challenges of designing ceilings from one end of a building to another. The seminar will explain the design and construction benefits of pre- engineered integrated ceiling systems versus traditional ceiling design and construction practices as well as describe the environmental and occupant comfort benefits of pre-engineered systems versus traditional systems. Appling new construction practice knowledge to make informed product specification choices is important. The seminar will help Implement new construction methods to design ceilings that can be easily constructed and support the understanding of the value in collaborating early with your ceiling partner to ensure best practices are followed to meet your project design intent.

What's New in LEED v4 and 4.1: Focus on Material & Resources (MR) & Indoor Environmental Quality (IEQ) for the Ceiling Category

Credits: 1 LU

Approved by: AIA/HSW, ASID, GBCI, IDS,

IDC, IDCEC|HSW, IIDA

LEED is the world's leading green building project and performance management system, delivering a comprehensive framework for green building design, construction, operations, and performance. Today's version of LEED v4, and LEED v4.1, raises the bar on building standards to address energy efficiency, water conservation, site selection, material selection, day lighting and waste reduction. Learn about the new updates in the USGBC LEED rating systems for both Version 4 and Version 4.1. Both of these rating systems revolutionize the areas of Material and Resources and Indoor Environmental Quality. We will review these sections in depth and show how the ceiling and walls category can contribute to the importance of healthier materials and healthier indoor environments.

#### Wood Specialty Ceilings and Walls

Credits: 1 LU

Approved by: AIA/HSW, IDCEC

Need help designing and specifying wood specialty ceiling systems that meet both design intent and installation, code, and schedule requirements? Join us to learn how wood can be used for today's popular ceiling design trends in standard, custom, premium, and one-of-akind systems to create high performance, constructible, inspiring spaces.

## **Acoustical Research Facility Tour** (Lancaster Campus Visit Only)

Credits: 1 LU

Approved by: AIA/HSW

This program is a guided tour of an NVLAP certified acoustical research facility. Participants will learn the construction means and methods of such a facility and will gain an understanding of the ASTM tests for NRC, CAC, STC, and AC. Groups will also learn how construction assemblies can affect the performance of a space, designing for optimum privacy or intelligibility as well as reverberation time.

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## **Design Symposium** (Lancaster Campus Visit Only)

Credits: 6 LU Approved by: AIA/HSW

### Creating Healthy Spaces Where **Seniors Can Thrive**

Credits: 1 LU Approved by: AIA/HSW, ASID, GBCI, IDS, IDC, IDCEC|HSW, IIDA

Design Symposium is an all-day program held at Armstrong headquarters in Lancaster, Pennsylvania. This seminar gives participants an intensive education in acoustical ceiling systems. It also includes hands-on learning, with various activities, workshops, and a tour of Armstrong's corporate campus, local acoustical ceiling plant, and laboratories.

The population of adults over 65 years old is growing at an unprecedented rate. By 2034, older adults are expected to outnumber children for the first time in U.S. history. As individuals age, the body's ability to maintain a balanced integration of the organs, muscles, bones, immune and nervous systems decline. Planning for the environments where older adults live, work, and travel presents an opportunity to promote healthy living, adapted to meet the unique physical, mental, and biological needs of an aging population. In addition, the COVID-19 pandemic highlighted vulnerabilities to infectious disease for older adults and senior living communities. Older adults, especially those in senior living facilities, will continue to be vulnerable to infectious disease outbreaks, as well as familiar respiratory illnesses like influenza and pneumonia. Healthy building upgrades can have multiple benefits beyond infectious disease risk reduction, including imp roved comfort and cognition.