

EVERYTHING IS ACOUSTIC



OCTOBER 29, 2019 3:30pm—4:30pm

OBJECTIVES & OVERVIEW
EVERYTHING IS ACOUSTIC



LEARNING OBJECTIVES:

- Provide a greater understanding of acoustic product specifications and details.
- Offer the ability to directly compare the basic principles of acoustic lighting to more familiar treatment methods, such as wall panels or hanging baffles.
- Explain the benefits and misconceptions of using acoustic materials and products.
- Educate on how to apply acoustic treatments to current or future designs.

OVERVIEW:

1. INTRO / THE BEGINNINGS

Video segment: 5 minutes, 25 seconds; Discussion segment: 2 minutes

- General introduction to history of acoustics and mystery of Riverbank Acoustical Laboratory
- How have current acoustic trends changed in terms of designing spaces and what needs to be considered to design spaces for optimal sound?

2. SABINS VS. NRC

Video segment: 2 minutes, 39 seconds; Discussion segment: 2 minutes

- Ideal reverberation time in spaces for communication
- Difference between Sabins and NRC

3. ROOM 'D' (REVERBERATION VS. ANECHOIC)

Video segment: 10 minutes, 15 seconds; Discussion segment: 5 minutes

- First-hand look into a reverberation chamber, and discussion of the best conditions for testing the NRC of a material
- Demonstrates the properties of an anechoic chamber, and how it is best for testing the tonal absorption of objects
- Discusses high and low frequencies at the same scales as architectural design
- Introduces the idea of configuration of acoustic materials rather than just considering materials themselves

4. CASE STUDY - TWO BEERS BREWING CO.

Video segment: 3 minutes; Discussion segment: 2 minutes

- Shows the conditions in the tasting room at Two Beers Brewing Co. in Seattle, WA before and after acoustic application in the space
- Displays tested reverberation time before and after

5. LAB TESTING - ELMA, WA

Video segment: 2 minutes, 30 seconds; Discussion segment: 2 minutes

- Discusses the use of laboratory testing to determine the properties of systems and objects to be placed in any given space
- Talks about some history of the facility

6. MATERIAL CONFIGURATION & LIGHTING

Video segment: 2 minutes, 40 seconds; Discussion segment: 5 minutes

- Discusses the concept that everything is acoustic in some way, but the overall sound of a space will be determined by the total composition of materials and surfaces within it
- Reviews best practices for combining lighting and acoustics, and their inherent differences
- Goes over how a material can be manipulated to take on different acoustic properties

7. CASE STUDY - OFFICE SPACE

Video segment: 3 minutes, 40 seconds; Discussion segment: 4 minutes

- Explains the speed of sound, and how sound reacts to surfaces and different spaces
- Clarifies what is being determined when testing for reverberation time

8. CASE STUDY - PORTAGE BAY CAFE / CONCLUSION

Video segment: 7 minutes; Discussion segment: 5 minutes

- Shows the conditions in the tasting room at Portage Bay Cafe in Seattle, WA before and after acoustic application in the space
- Displays tested reverberation time before and after

