

# HVAC Continuing Education Syllabus

The course will be divided into two parts, the first a focus on low dewpoint units and applications and the later a focus on multizone units and direct replacement HVAC units.

## Low dewpoint applications

Description – A discussion on low dewpoint HVAC equipment. Including methods and practices to get you to the low dewpoint required. Reheat systems that go along with the low dewpoint requirements, their types and their advantages and disadvantages. Other components in the airstreams, filtration, humidification, UV lights, etc.

Hybrid systems – Chilled water combined with DX cooling

Limits with DX

DX coil arrangements

Compressor selections

Reheat systems – know the difference, or ask

Required components

## **Energy efficient direct replacement HVAC units with a focus on multizone units**

Description – Direct replacement of aging hvac equipment is an approach that is not well known by some. We seek to educate engineers on the advantages and disadvantages of this approach, what to expect with direct replacements. An emphasis is placed on multizone equipment, the advantages and disadvantages of multizone units, advances in technology and why multizone units are still viable

What is a direct replacement?

Advantages of doing a direct replacement

- Advances in technology

- Better cabinet construction

- Additional modulation

- Increased efficiency

Multizone refresher

Likes and advantages of multizone equipment

Dislikes and disadvantages of multizone equipment

The VAV approach to replacing a multizone and why it may not be the best

How new multizone units vary from the old.

Comparisons of three types of multizone units, 2 deck, 3 deck, 3 deck vav

The use of VFDs on condenser fans

Full and part load efficiency of MZ units.