HVAC University Course Descriptions

Classes

- October 5 – HVLS Fan Design, Application and Specification
- October 6 – Ventilation Strategies Utilizing Ceiling Exhaust and Bathroom Exhaust Fans to Meet Indoor Air Quality Requirements
- October 7 – Life Safety Dampers
- October 12 – Air-to-Air Energy Recovery
- October 13 – Conditioning High Percentages and 100% Outdoor Air
- October 19 – Specifying Equipment for Surviving Hurricane Wind Forces
- October 20 – Warehouse Ventilation Strategies and Design Considerations
- October 26 – Increasing Design Efficiency Using Software
- October 27 – COVID Mitigation Strategies Utilizing HVAC Systems

HVLS Fan Design, Application, and Specification

This course covers the proper selection and specification of high volume, low speed (HVLS) fans for different applications. An overview of HVLS performance testing, performance data, safety and industry standards is included.

Life Safety Dampers

Developed to provide basic information on life safety dampers, this course discusses fire, fire smoke, smoke, and ceiling radiation dampers and their UL testing requirements, application, and installation. Ease-of-use methods for installation as well as control options that can be supplied for life safety dampers will be presented.

Ventilation Strategies Utilizing Ceiling Exhaust and Bathroom Exhaust Fans to Meet Indoor Air Quality Requirements

This course discusses the critical nature of indoor air quality (IAQ) including compliance with codes and standards, ventilation strategies, and fan sizing utilizing ceiling exhaust and bathroom exhaust fans. Now, more than ever, people are spending increased amount of time in their residences. Effective IAQ contributes to the health and comfort of occupants while ensuring proper ventilation and moisture management.

Air-to-Air Energy Recovery

This course discusses the benefits of air-to-air energy recovery applied to ventilation systems and energy recovery technology (devices), pros and cons of available technology, psychrometrics, payback analysis, and the latest energy standards and code mandates.

Conditioning High Percentages and 100% Outdoor Air

This course discusses common HVAC systems found in commercial and institutional applications and the methods used to condition high percentages of outdoor air with an overview and comparison of single-zone variable air volume (SZVAV), multi-zone variable air volume (VAV) and dedicated outdoor air systems (DOAS).

Increasing Design Efficiency Using Software

This course discusses how to be more efficient in the design process using Greenheck's software. It covers three major software; eCAPS®, CAPS®, and Revit® integration. Included is a demonstration on how to size, apply, specify, schedule and generate AutoCAD® or Revit drawings for fans, energy recovery, packaged rooftop units, louvers, and dampers. Energy recovery payback analysis and other time-saving features are included.

Warehouse Ventilation Strategies and Design Considerations

This course is intended to familiarize participants with typical heating and ventilation systems in warehouse applications. Topics include summer ventilation strategies, space heating systems, benefits of high volume, low speed (HVLS) fans for air circulation and life safety design considerations.

COVID Mitigation Strategies Utilizing HVAC Systems Understanding

This course examines the role of HVAC equipment and systems in mitigating the risk of air borne viruses such as COVID-19. Fundamental technology such as outdoor air, ventilation, humidification, and filtration are reviewed along with additive technologies such as electronic air cleaning devices. A case study of the re-opening of a commercial building with a focus on HVAC systems is presented.

Specifying Equipment for Surviving Hurricane Wind Forces

Equipment located in coastal applications are required to survive substantial wind loads, flying debris and/or wind-driven rain. This course will define equipment application criteria and review the current applicable standards and codes. Proper specification verbiage to meet Hurricane Prone Region applications will be presented, as well as a review of present and proposed future International Building Codes and the Florida Building Code.