HVAC University
Course Descriptions

Classes

- February 2, 12-1 p.m., CST – Kitchen Ventilation Systems: Meeting Codes and Standards
- February 3, 12-1 p.m., CST – Conditioning High Percentages and 100% Outdoor Air
- February 15, 12-1 p.m., CST – Life Safety Dampers
- February 16, 12-1 p.m., CST – COVID Mitigation Strategies Utilizing HVAC Systems
- February 17, 12-1 p.m., CST – Air-to-Air Energy Recovery
- February 22, 12-1 p.m., CST – Ventilation Strategies Utilizing Ceiling Exhaust and Bathroom Exhaust Fans to Meet Indoor Air Quality Requirements
- February 23, 12-1 p.m., CST – Warehouse Ventilation Strategies and Design Considerations

Kitchen Ventilation Systems: Meeting Codes and Standards

Based on good kitchen design principles, this course focuses on products and concepts that promote energy efficient kitchen ventilation design. The value of demand ventilation (variable volume) systems and strategies regarding the application and selection of the right system configuration for various applications is discussed.

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).

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.

COVID Mitigation Strategies Utilizing HVAC Systems

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.

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.

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.

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.