HVAC LOCAL GREENHECK UNIVERSITY

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Up to 7 PDH Credits Available

BUCKLEY 19 70 ACADEMY

Buckley Academy
Price Engineers Training

November 5, 2025
Buckley Training Room
1099 Hingham Street
Rockland, MA
8:00 AM – 5:00 PM

November 6, 2025
Doubletree Hotel
123 Old River Road
Andover, MA
8:00 AM – 5:00 PM

November 12, 2025
Courtyard Marriott Hotel
4 Sebeth Drive
Cromwell, CT
8:00 AM – 5:00 PM

November 13, 2025
Hilton Trilogy Albany Airport
254 Wolf Road
Latham, NY 12110
8:00 AM – 5:00 PM

Agenda

8:00am	Continental Breakfast
9:00 am	Energy Codes and Their Impact on Fan Selection (Fan Efficiency Index)
10:00 am	Laboratory Fume Exhaust
11:00 am	Understanding Air & Sound
12:00 pm	Lunch (break)
1:00 pm	Conditioning High Percentages & 100% Outdoor Air
2:00 pm	Air-to-Air Energy Recovery
3:00 pm	Motor Technology in the HVAC Industry
4:00 pm	Increasing Design Efficiency Using CAPS/eCAPS Software

Register Now

Course Descriptions

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.

Energy Codes and Their Impact on Fan Selection (FEI)

This course will introduce fan energy efficiency metrics and how they are used for compliance with building and energy codes such as ASHRAE 90.1. Recent activities and future changes to efficiency metrics will be presented, providing up-to-date information needed for proper fan selection to minimize energy consumption.

Laboratory Fume Exhaust

This presentation reviews design strategies and products required to exhaust contaminated air from critical environments. Greenheck's dynamic Virtual Lab will be utilized to show how the exhaust system reacts to changes in pressure in the lab space as well as fume hood sash positions. Understanding these system fundamentals will allow us to identify solutions that will safely reduce the cost of operation, more effectively control the system pressure, and meet exhaust plume requirements.

Understanding Air & Sound

Understanding and meeting air performance and acoustical criteria for HVAC applications are critical project requirements. This course reviews the fundamentals of air performance including nomenclature, reading fan curves and proper fan selections. Information regarding acoustical terminology will be presented along with the differences between sound power and sound pressure and how manufacturers acoustically test equipment.

Conditioning High Percentages & 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 (VAV) and Dedicated outdoor Air Systems (DOAS). Significant reduction of energy use can be achieved by applying different equipment schemes. The benefits of applying total heat energy recovery, decoupling latent and sensible loads, different compressor technologies, economizer options modulating head pressure control, and high turndown furnaces are reviewed in detail. New codes and efficiency standards are also reviewed that apply to dedicated outdoors air systems.

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, psychometrics, payback analysis, and the latest energy standards and code mandates. An overview of typical energy recovery applications and design considerations such as frost protection, bypass, and controls is included.

Motor Technology in HVAC with Fan Array/Retrofit

This course explores the advantages of modern motor technology when applied to fan systems, with a focus on retrofit applications. Topics include the benefits of fan arrays over traditional single-fan systems, motor types and their efficiency characteristics, integration with VFDs, redundancy and reliability improvements, as well as maintenance and lifecycle cost considerations. Current energy standards, code requirements, and payback analysis will be reviewed. An overview of design best practices for retrofitting existing fan array systems—including space constraints, control strategies, and acoustic performance—will also be provided.

ESTABLISHED 1970
BUCKLEY
55 YEARS