

# Instructors

Algonquin College is the largest college in Eastern Ontario. Dedication to student success is Algonquin College's guiding principal and is demonstrated through the quality of its programs, staff, the continual expansion of its facilities, and by forging strategic partnerships. Every action since the College was established in 1967 has been to ensure students have access to the education and skills training demanded by the marketplace to launch a rewarding career.

Scott Howes is a Engineering Specialist with extensive experience and knowledge in Building Automation Controls and in HVAC technology. Scott has been in the Building Controls Industry for over twenty years in the Ottawa area.

In addition, Scott has been a Professor of part-time studies at Algonquin College since 2010 for the Building Environmental Systems Operator Class II program. Scott has a Bachelor of Science Degree in Industrial Electronics from Sam Houston State University.

After completing his degree Scott complete and received his teaching certificate from Sam Houston State University.

SCOTT HOWES



ALGONQUIN COLLEGE  
Corporate Training

## BOMA-Algonquin College Building Systems Essentials *For Building Operators*



### Upcoming Seminars

AIR CONDITIONING & REFRIGERATION

11 March 2021

WATER TREATMENT & FIRE PROTECTION

8 April 2021

AIR HANDLING SYSTEMS

13 May 2021

BUILDING CONTROL SYSTEMS

10 June 2021

HEATING SYSTEMS

9 September 2021

ENERGY EFFICIENCY FOR BUILDINGS

14 October 2021

BUILDING ELECTRICAL SYSTEMS

18 November 2021

BOMA Ottawa, and Algonquin College are pleased to present a series of workshops for Building Operators and for Commercial Real Estate Practitioners.

These 7 half day workshops are based on curriculum from the Building Environmental Systems Program at Algonquin College.

Developed by the staff of Algonquin and the BOMA Education Committee, each of the workshops are offered over a 12 month cycle approximately one per month.

All classes, in 2021, will be offered via the Algonquin College on line training portal and led by certified instructors from Algonquin College.

For more information contact

BOMA Ottawa at [administration@bomaottawa.org](mailto:administration@bomaottawa.org)

*Building knowledge one course at a time.*

# Course Outlines



# Course Outlines

## AIR CONDITIONING SYSTEMS

This seminar discusses in more detail building air conditioning and refrigeration systems. Participants will receive instruction on the many aspects of building air conditioning systems including the air conditioning process, central plants, system components, system operations, controls, and maintenance procedures, relevant Acts, Standards, Codes and Regulations, Safety Precautions and Environmental Concerns.

## WATER TREATMENT & FIRE PROTECTION SYSTEMS

This seminar combines water treatment and fire protection systems to provide participants with a good understanding of these systems and how they impact the operation and safety of commercial properties. Topics covered will include water and humidification systems, water treatment, water efficiency, chemical handling, fire alarm and sprinkler systems, exhaust systems, maintenance procedures and record keeping requirements, relevant Acts, Codes, Standards and Regulations and health and safety procedures. The seminar will also discuss new upcoming standards for Intelligibility and Audibility.

## AIR HANDLING SYSTEMS

Operation and maintenance of commercial air handling systems are the focus of this seminar. Building Operators will be provided with a general knowledge and good understanding of the many components and maintenance requirements of these systems including principles of air flow, supply, return and exhaust systems, ventilation requirements, duct design considerations, indoor air quality assessments, seasonal requirements, occupancy limits, relevant Acts, Codes, Standards and Regulations, Regulator Authorities and more.

## BUILDING CONTROL SYSTEMS

This seminar provides an introductory look at the control systems and devices that can be applied in the operation of commercial properties. Participants will gain a basic understanding of efficiency and control strategies and how the following can be used to implement such strategies: sensors, controllers and control devices, control types, building automation systems, control system integration, maintenance procedures, relevant Acts, Codes, Standards and Regulations and safety precautions.

## HEATING SYSTEMS

This seminar covers the operation and maintenance of commercial heating and air handling systems. Topics discussed will include an overview of the types of heating systems available, system components and construction, heat distribution, system operations and efficiency techniques, maintenance procedures, relevant Acts, Codes, Standards and Regulations, Regulatory Authorities, and safety precautions.

## ENERGY EFFICIENCY FOR BUILDINGS

This seminar will provide operators with increased knowledge and awareness of the many ways that increased energy efficiency can be achieved in commercial building operations. The seminar will provide an overview of the building envelope and the building as a system. It will also discuss energy audits and retro-commissioning, lighting systems and controls, IESP pricing, Smart metering, natural gas applications, water conservation opportunities, co-generation and renewable energy, tenant energy use and tenant engagement. Participants will also learn how to develop a business case to determine simple payback and return on investments and how to successfully implement opportunities for increased efficiency.

## BUILDING ELECTRICAL SYSTEMS

This seminar introduces the fundamental concepts and principals of electricity in the following areas of instruction: electrical system components, arc flash, emergency power supply, system maintenance, switch poles and throws, electrical testing and troubleshooting, relevant Acts, Codes, Standards and Regulations, Regulatory Authorities and Health and Safety procedures.