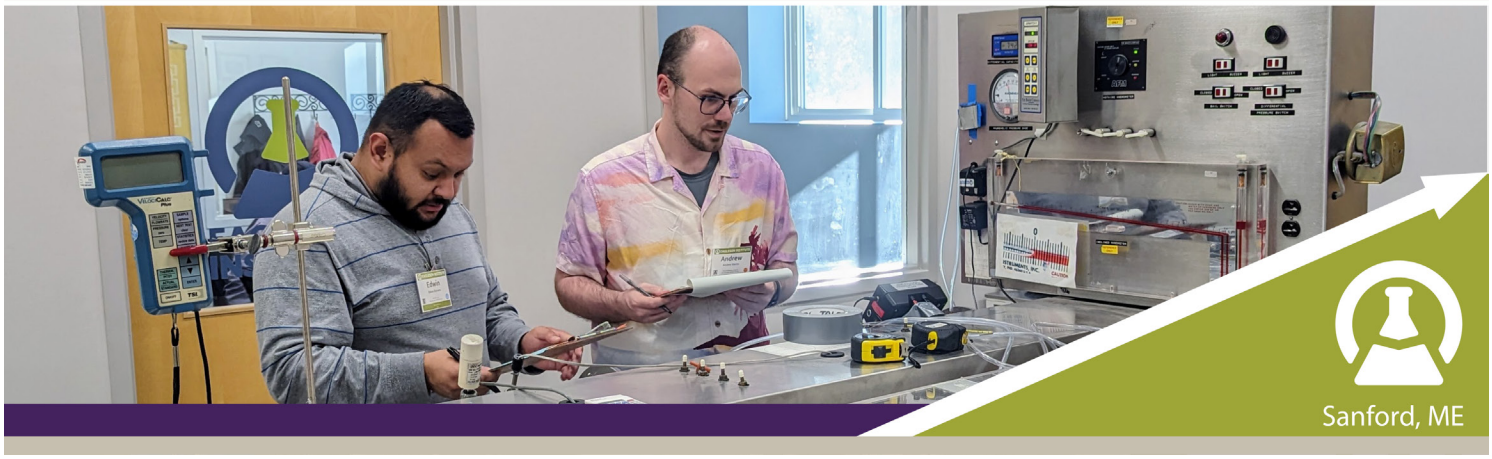
SAFETY CABINET TECHNOLOGY



The course provides numerous opportunities for hands-on learning. Engaging class discussions allow participants to learn from each other. The guided tour of a BSC manufacturing facility provides a unique opportunity.

Course Description:

This two-day course provides a comprehensive overview of Biological Safety Cabinets through lectures, demonstrations, and hands-on laboratory workshops.

Participants Will Learn:

- How BSCs are constructed and function
- How the types of BSCs vary from each other and from other laboratory ventilation equipment
- What exhaust options exist for each type
- Why HEPA filtration plays a key role in BSC operation
- What factors influence BSC performance
- How to use safety cabinets effectively
- How performance envelopes are used to select a BSCs set point
- When and how cabinet decontamination is performed
- What hazards are associated with decontamination and certification
- How all required BSC testing is performed
- How to select the appropriate BSC for a specific application

This Course is For:

Biosafety officers, principal investigators, industrial hygienists, facility engineers, architects and certifiers. No previous knowledge is necessary.

Instructor Team:

Instructors for this program include: **Lance Gaudette**, Engineering Technician, Baker; **Gary McCurdy**, Senior Applications Specialist, Air Techniques International; **Kara Held, PhD**, Science Director, Baker; **Aaron Johnson**, Senior Product Specialist, Baker; **Bob Jones**, Biological Safety Cabinet Certification Specialist, Eagleson Institute; **Bryan Lavallee**, Tech Support Supervisor, Baker; **Larry McCarthy**, Product Design Engineer, Baker; **Mary Ann Sondrini, EdM**, Executive Director, Eagleson Institute.

Registration:

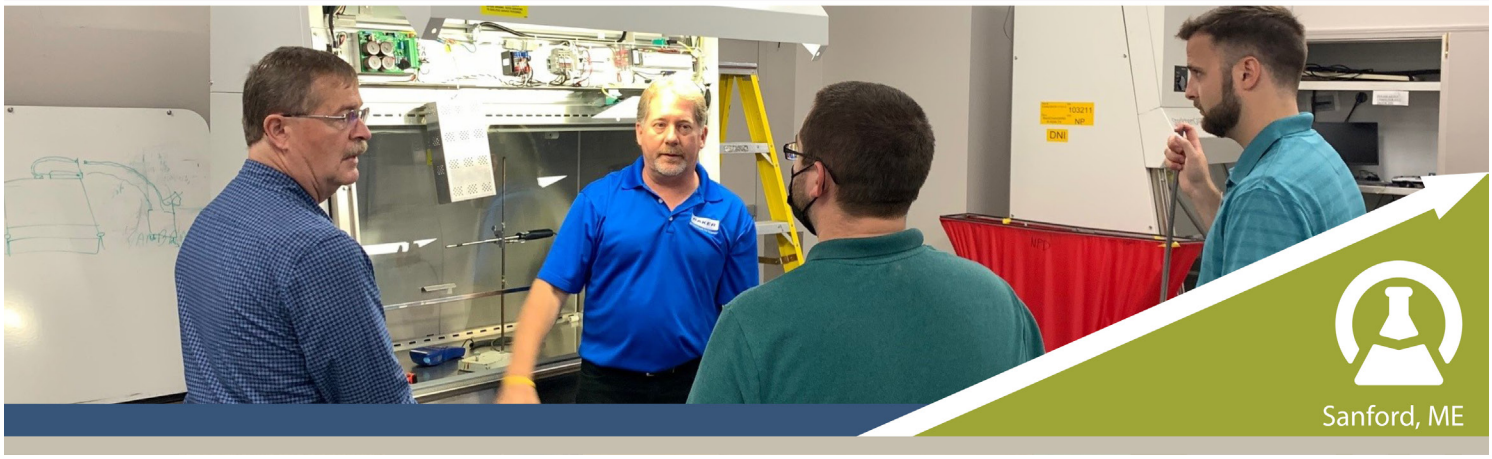
Tuition of $1345 must be paid in full to guarantee a space in the class. Tuition includes: course manual, lunch each day, an Eagleson Institute certificate and a special class reception and dinner with plenty of time to network with peers and instructors.

Register online at www.eagleson.org/SCT or call (207) 490-1076 to register or request a registration form.

Join us for the Week

This class is part of our **Biosafety Cabinet, Fume Hood & Lab Design Week** in the Spring and Fall. Join us for the entire week and save $200

INTRODUCTION TO CERTIFICATION



An opportunity for hands-on BSC certification practice, taught by experienced certifiers.

Course Description:

This half-day course reinforces the knowledge gained in our Safety Cabinet Technology course by providing hands-on practice.

Participants Will Learn:

- How to follow NSF 49 and IEST RPs requirements and appropriate test procedures for BSC certification
- What test equipment is required for the tests
- How to develop a testing grid for a BSC
- How to evaluate BSC airflow using smoke visualization
- How to conduct a smoke pattern test
- How to conduct a site assessment
- How to perform airflow tests
- How to perform HEPA leak testing

This Course is For:

Certifiers, industrial hygienists, and biosafety officers.

Instructor Team:

The lead instructor for this program is **Aaron Johnson**, Senior Product Specialist, Baker. Other instructors include: **Gary McCurdy**, Senior Applications Specialist, Air Techniques International; **Bryan Lavallee**, Tech Support Supervisor, Baker.

Registration:

Tuition of $445 must be paid in full to guarantee a space in the class. Tuition includes: course manual, lunch and an Eagleson Institute certificate.

Prerequisite: This course must be taken in conjunction with Eagleson Institute's Safety Cabinet Technology course.

Register online at www.eagleson.org/ITC or call (207) 490-1076 to register or request a registration form.

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ASHRAE 110

Participants are able to take part in a real ASHRAE 110 test.

Course Description:

This half-day course uses lecture and demonstration to provide an overview of the ANSI/ASHRAE Standard 110-2016 method for testing laboratory fume hood performance. The standard uses airflow measurements, qualitative smoke studies and quantitative tracer gas procedures to determine a hood performance rating. Instrumentation, apparatus requirements, practical considerations and reporting results are discussed. An ASHRAE 110 test is performed in a demonstration laboratory.

Participants Will Learn:

- The scope and purpose of the ASHRAE 110 test method
- What equipment is needed for the test
- How to report and interpret hood test results
- How to perform the procedures specified in the test method

This Course is For:

Certifiers, industrial hygienists, and biosafety officers.

Instructor Team:

Instructors for this program include: **Pam Greenley, CIH**, Consultant or **Jack Price, PE, CIH, CSP**, Consultant.

Registration:

Tuition of $445 must be paid in full to guarantee a space in the class. Tuition includes: course manual, lunch and an Eagleson Institute certificate.

Prerequisite: This course must be taken in conjunction with Eagleson Institute's HVAC Systems and Laboratory Design course.

Register online at www.eagleson.org/ASH or call (207) 490-1076 to register or request a registration form.

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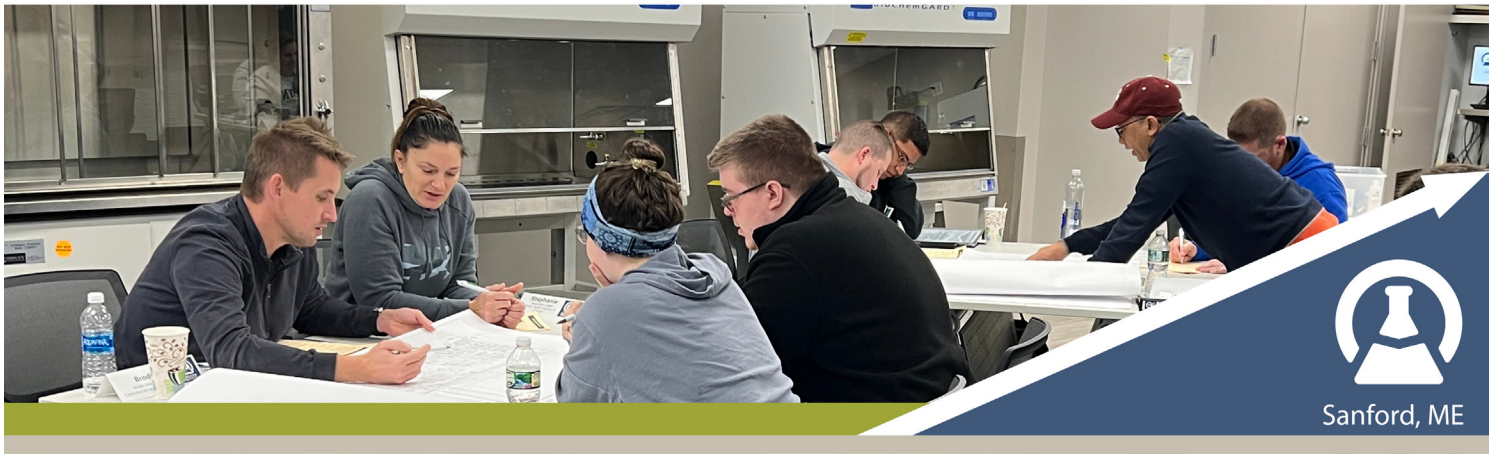
HVAC SYSTEM & LABORATORY DESIGN



"Fume hoods and biosafety cabinets are the primary means of controlling hazardous exposures to laboratory personnel. Understanding the design process and how to evaluate laboratory HVAC systems is key to providing a healthy environment." - Pam Greenley (Lead Instructor)

Course Description:

This two-day introduction to the design and evaluation of laboratory HVAC systems combines lecture, class discussion, hands-on laboratory work, and group activities. Topics include: basic airflow principles; ventilation equipment exhaust requirements; OSHA, ANSI, ASHRAE and NFPA regulations; fume hood testing and laboratory controls. Real life laboratory construction and renovations are used as examples throughout the course. All course concepts come together in an activity in which participants learn the critical questions to ask when reviewing mechanical drawings.

Participants Will Learn:

- Basic ventilation elements, terms and equations
- Basic principles of lab ventilation control
- The role of pressure relationships in lab design
- Types and sources of pressure losses in exhaust systems
- The key elements of building exhaust and stack design
- How OSHA, ANSI, ASHRAE, and NFPA regulations impact lab HVAC design
- Design requirements for fume hoods and BSCs
- Uses for various airflow measuring instruments
- How to take airflow and ventilation measurements
- How to conduct a fume hood survey
- Steps in the lab design process
- How to read mechanical drawings
- Questions to ask when reviewing mechanical drawings

This Course is For:

Design engineers, architects, certifiers, industrial hygienists, safety officers, and facility engineers.

Instructor Team:

The lead instructor for this program is **Pam Greenley, CIH**, Consultant. Other instructors include: **Larry McCarthy**, Product Design Engineer, Baker; **Jeff Puleo,** AIA, LEED AP, Senior Architect, Science Planner, HGA.

Registration:

Tuition of $1345 must be paid in full to guarantee a space in the class. Tuition includes: course manual, lunch each day, an Eagleson Institute certificate and a special class reception with plenty of time to network with peers and instructors.

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