

# FUME HOOD PERFORMANCE WORKSHOP

April 17<sup>th</sup> & 18<sup>th</sup>  
PHOENIX, AZ

## LOCATION:

Fume Hood Certified, LLC  
20817 N 21st Ave #14  
Phoenix, AZ 85027



Deep Dive into the fascinating world of laboratory fume hoods. Join us for an immersive and interactive workshop where we delve into the critical elements of fume hood performance. We will take a holistic look at the entire laboratory ventilation system and how all the elements have to work together to optimize fume hood performance. This engaging, hands-on workshop is not just about theory—it's an interactive journey to enhance your practical skills and deepen your understanding of fume hood functionality. You'll learn how room conditions and user practices can significantly influence fume hood performance. We'll guide you through the critical process of verifying the safety and effectiveness of fume hoods, exploring a variety of testing methods. Discover how room conditions and user practices can significantly influence fume hood functionality.

Don't miss this opportunity to elevate your fume hood expertise and contribute to creating a safer, more productive working environment. Join us for an educational experience that promises to be both enlightening and empowering!



# KEY HIGHLIGHTS

- 1 In-Depth Understanding of Fume Hood Mechanics:** Dive into the intricacies of fume hood design and functionality. Learn how these critical pieces of laboratory equipment protect users from harmful vapors and maintain a contaminant-free workspace.
- 2 Verification of Safe Performance:** Discover reliable methods to verify the safe performance of your fume hood. Our experts will guide you through various testing and monitoring techniques that help in maintaining optimal performance standards.
- 3 Impact of Room Conditions:** Uncover how mechanical factors within a laboratory affect fume hood efficiency. The workshop will explore topics such as air flow, room temperature, and layout and provide insights into how each of these elements can enhance or hinder fume hood performance.
- 4 Best User Work Practices:** Learn about the best work practices to ensure maximum safety and efficiency. This segment focuses on user behavior; including proper positioning, material handling, and routine maintenance tips.
- 5 Interactive Sessions and Demonstrations:** Engage in hands-on demonstrations and interactive sessions. These practical experiences are designed to solidify your understanding and provide real-world applications of the concepts discussed.
- 6 Expert Guidance and Networking:** Benefit from the expertise of industry leaders and network with peers facing similar challenges in laboratory safety and efficiency.

This workshop is an invaluable opportunity for those responsible for fume hood safety and training to enhance their knowledge and expertise with skills in verifying safe fume hood performance. Knowledge is power, and this workshop will give you the confidence that you are up to date on all things fume hoods.

**Secure your spot today and take a significant step towards  
“making MY lab safer one fume hood at a time”**

## THIS WORKSHOP IS DESIGNED FOR:

- Testers of fume hoods (Third Party & In-House)
- EHS Professionals
- TAB Professionals
- Laboratory managers
- Industrial hygienists
- Researchers and fume hood users
- Facility engineers, architects, and certifiers of fume hoods
- Business Owners/Executives who are considering the opportunities available for expanding into the fume hood testing market.
- Others who possess a strong background in fume hood knowledge and/or experience who wish to enhance their technical and testing knowledge via classroom/networking setting.

**Registration Deadline: March 8, 2024**

# WORKSHOP INSTRUCTORS

---



**Chip Albright**

Fume Hood Certified, LLC  
Founder and President

Chip has spent over 40 years designing, manufacturing, installing and testing fume hoods. During that time, a core objective has been educating others about the art and science behind laboratory fume hoods and their relationship with the Laboratory Ventilation System. Active with SEFA and ASHRAE, Chip was involved in setting several hood related standards. His role at Fume Hood Certified is focused on training and certifying more fume hood testers, both third-party and in-house.



**Victor Neuman PE**

Fume Hood Certified, LLC  
Vice President (Engineering)

Victor has trained over 3,000 people in laboratory building design. He has designed green fume hood control systems for over 108 laboratory buildings in the last 40 years. He taught at the University of California and San Diego State University. He is founding Vice Chair of ASHRAE's Lab Committee and co-author of ANSI Z9.5 Lab Ventilation.

## ABOUT THIS WORKSHOP

Chemical fume hoods are one of the most misunderstood and misused piece of safety equipment present within the laboratory. Many installed fume hoods are not performing at safe levels and many testing concepts fail to expose the unsafe performance. Chemical fume hoods are an Exposure Control Device (ECD) whose primary function is to protect the lab occupants from exposure to potentially unsafe chemical exposure.

A fume hood is considered an engineering control, but it also serves as a PPE to protect the user from lab accidents such fires and explosions.

You will gain a critical understanding of “safe hood performance” and things you can do to help ensure that a fume hood is performing safely. While there are no specific requirements for testing, best practices are to test annually to ensure safe performance in compliance with OSHA and other mandated EH&S regulations.

While the focus is on chemical fume hoods, we will discuss other types of safety enclosures and laboratory ventilation components that impact hood performance.

Instructors will also provide hands-on demonstrations of these performance tests. Proper testing procedures will be emphasized, along with reporting requirements and the evaluation of test results.

# WORKSHOP AGENDA

Tuesday, April 16, 2024 (arrival)

**Wednesday, April 17, 2024**  
(8:30am to 5:30pm – Lunch Provided)

## Day 1: Understanding the Basics and ASHRAE 110-2016

- 1. Introduction to Laboratory Safety and Fume Hoods**
  - Importance of fume hoods in laboratory safety
  - Overview of different types of fume hoods and ventilated enclosures
- 2. Fundamentals of Fume Hood Design**
  - Basic design principles
  - Types of safety enclosures
  - Understanding airflow and containment
- 3. Hands on Exercise**
- 4. ASHRAE 110-2016: Standard for Testing Fume Hoods**
  - Introduction to ASHRAE 110-2016
  - Key components and requirements of the standard
  - Understanding the methodology of testing as per ASHRAE 110-2016
- 5. ASHRAE 110-2016 Testing Procedures**
  - Setting up for the test
  - Step-by-step guidance through the testing procedure
  - Common issues and how to address them
- 6. Practical Session: Demonstration of ASHRAE 110-2016 Testing**
  - Hands-on experience with ASHRAE 110
  - Participant involvement in a mock test
- 7. Discussion and Q&A on ASHRAE 110-2016 Testing**

*Note: The course will include breaks and lunch. Additionally, participants will receive a training manual covering all the topics discussed, along with supplementary materials for further reading and practice.*

*Actual Agenda subject to changes as required.*

**Thursday, April 18, 2024**  
(8:30am to 5:30pm – Lunch Provided)

## Day 2: Advanced Testing Techniques and Performance Tracking

- 1. Tri-Color Testing Method**
  - Introduction to Tri-Color Testing
  - Advantages and applications of Tri-Color Testing
  - Step-by-step guide to performing Tri-Color Testing
- 2. Practical Session: Tri-Color Testing**
  - Hands-on experience with Tri-Color Testing
  - Analysis of test results
- 3. HIN Labeling - Hazard Identification and Notification**
  - Importance of HIN in laboratory safety
  - Guidelines for effective HIN labeling
  - Case studies and best practices
- 4. Introduction to "Fume Hood Performance Tracker" Software**
  - Overview of the software
  - Key features and benefits
  - Integration with testing procedures
- 5. Using "Fume Hood Performance Tracker" for Data Analysis and Reporting**
  - Step-by-step guide to inputting and analyzing data
  - Generating reports and interpreting results
  - Best practices for maintaining records and performance tracking
- 6. Practical Session: Using "Fume Hood Performance Tracker"**
  - Hands-on training with the software
  - Simulated scenarios for practice
- 7. Final Discussion, Evaluation, and Feedback**
  - Open forum for questions and clarifications
  - Discussion of real-world applications and scenarios
  - Course evaluation and feedback session
- 8. Closing Remarks and Certification**
  - Summary of key takeaways
  - Distribution of certificates of completion
  - Networking and end of course

# TRAVEL INFORMATION

---

We recommend all attendees that require travel guidance to reach out to us prior to registering for this workshop.

## Airport:

PHX. (Phoenix International Airport)

- 23 miles from our facility
- 30 minutes average drive time
- \$80 average taxi fare
- Uber average is \$42

## Workshop Location:

Fume Hood Certified, LLC

20817 N 21st Ave #14

Phoenix, AZ 85027

<https://maps.app.goo.gl/WJHaH1g3UcTjHRBw7>

## Hotels:

Attendees must directly reserve a hotel of their choice. Below is a short list of hotels in general proximity to the training center. Hotel and transportation costs are not covered by the workshop registration fee.

### Hilton Garden Inn Phoenix North Happy Valley

1940 W Pinnacle Peak Rd, Phoenix, AZ 85027

(623) 434-5556

### Courtyard by Marriott Phoenix North/Happy Valley

2029 W Whispering Wind Dr, Phoenix, AZ 85085

(623) 580-8844

### Drury Inn & Suites Phoenix Happy Valley

2335 W Pinnacle Peak Rd, Phoenix, AZ 85027

(623) 879-8800

### Hampton Inn & Suites Phoenix North/Happy Valley

2550 W Charlotte Dr, Phoenix, AZ 85085

(623) 516-9300

### Comfort Inn & Suites Phoenix North - Deer Valley

17017 N Black Cyn Hwy, Phoenix, AZ 85023

(602) 548-8888

## IMPORTANT DATES AND TIMES

### Arrival in Phoenix:

Tuesday, April 16<sup>th</sup>

### Workshop Dates:

Wednesday, April 17<sup>th</sup>

Thursday, April 18<sup>th</sup>

### Departure:

Friday, April 19<sup>th</sup>

If you have any questions, let's talk!

# REGISTRATION AND PAYMENT MUST REACH THE FUME HOOD CERTIFIED OFFICE ON OR BEFORE MARCH 8, 2024

Pre-registration and payment of fees are necessary to ensure your participation in the workshop.

## Three ways to register:

1. Online: <https://www.fumehoodcertified.com/workshop>
2. Email this form to [chip@FumeHoodCertified.com](mailto:chip@FumeHoodCertified.com)
3. Mail this form to: FUME HOOD CERTIFIED, PO Box 71477, Phoenix, AZ 85050

Date: \_\_\_\_\_ Name: \_\_\_\_\_  
(Onboarding form will be sent once registered)

Company: \_\_\_\_\_

Address 1: \_\_\_\_\_

Address 2: \_\_\_\_\_

City/State/Zip: \_\_\_\_\_

Email: \_\_\_\_\_ Phone/Cell: \_\_\_\_\_

### Name of Person 2 (if applicable):

Name: \_\_\_\_\_

Email: \_\_\_\_\_ Phone/Cell: \_\_\_\_\_

### Name of Person 3 (if applicable):

Name: \_\_\_\_\_

Email: \_\_\_\_\_ Phone/Cell: \_\_\_\_\_

### Workshop Fees:

**\$995 (first employee)**

**\$896 (each additional employee - 10% off)**

**Single Attendee: \$995 Total**

**Two attendees: \$1,891 Total (\$995 + \$896)**

**Three attendees: \$2,787 Total (\$995 + \$896 + \$896)**

### Payment Methods

Check enclosed made payable to:  
**Fume Hood Certified**

Visa  Mastercard  American Express

Name on Card: \_\_\_\_\_

CC Number: \_\_\_\_\_

Exp Date: \_\_\_\_\_ CVV: \_\_\_\_\_

Billing Zip Code: \_\_\_\_\_

Signature: \_\_\_\_\_

**Cancellation Policy:** Cancellation by registrants, regardless of reason, will be subject to a \$250 service charge to cover FUME HOOD CERTIFIED's expenses. A refund of the prepaid registration will be made less the \$250 service charge. No Shows or late cancellations (those who registered for the workshop who do not cancel at least 14 days prior to the workshop and subsequently do not attend the course) will forfeit the entire registration fee. Please inform FUME HOOD CERTIFIED and your hotel of your cancellation as soon as possible.

Fume Hood Certified reserves the right to cancel any workshops having insufficient registrants, in which case, all prepaid registration fees will be refunded in full. Cancellation for insufficient registrants will be 30 days before event.



# RECOMMENDED PUBLICATIONS:

---

Once registered, we will provide you links to a number of our resources.

To achieve the best learning results, it is highly recommended that attendees *read the following publications and take the following courses BEFORE* attending the workshop:

- FUME HOOD CERTIFIED Procedural Standards for Fume Hood Performance Testing – 2nd Edition
- ANSI/ASHRAE 110 - 2016 Methods of Testing Performance of Laboratory Fume Hoods
- ANSI/IIHA Z9.5 – 2012 Laboratory Ventilation
- FHC ASHARE 110 Online Course
- FHC Tri-Color Online Course
- FHC Laboratory Fume Hoods Explained Online Course

*Instructor assumes that all attendees have a thorough working knowledge of the requirements of these publications prior to attending the workshop.*

## IMPORTANT REMINDERS:

---

- 1** Registrations will be filled on a “first come-first served” basis. Please note that class sizes are limited to 6 to 12 people.
- 2** Workshop fees include course instruction, lunch, am/pm refreshments.
- 3** Workshop fees include certification.
- 4** Classes are tentative based on a minimum of 6 people enrolling. Class will be confirmed at least 30 days before the class.
- 5** Travel, Transportation and lodging not included



## QUESTIONS? CONTACT US

[www.fumehoodcertified.com](http://www.fumehoodcertified.com) • 623.562.0907 • [experts@fumehoodcertified.com](mailto:experts@fumehoodcertified.com)