



# ENGINEERING TRAINING 2024

## OVERVIEW

The Price training classes provide consulting and design engineers with the training needed to specify and select air distribution equipment to best meet their design criteria. The training program is an extensive hands-on introduction to air distribution design.

**PDH ELIGIBLE:** The In-Person Price Engineering Training (PET) is accredited for a minimum of 10 Professional Development Hours.


## REGISTRATION

Havtech will cover your registration and airline expenses and arrange your travel from your home airport to Price. Price will cover the costs for your hotel accommodations, local transportation, meals, and training materials during the training.

Click your preferred training dates below to register or email [marketing@havtech.com](mailto:marketing@havtech.com) and we will register you.

 **INTRODUCTORY COURSE**  
March 5 - 7, 2024  
IN-PERSON, Casa Grande, AZ

 **INTRODUCTORY COURSE**  
June 11 - 13, 2024  
IN-PERSON, Suwanee, GA

 **EXCLUSIVE: WOMEN IN ENGINEERING WEEK**  
June 18 - 21, 2024  
IN-PERSON, Suwanee, GA

 **ADVANCED COURSE**  
July 16 - 18, 2024  
IN-PERSON, Suwanee, GA

 **HAVTECH EXCLUSIVE**  
August 7 - 9, 2024  
IN-PERSON, Suwanee, GA

 **ADVANCED COURSE**  
October 8 - 10, 2024  
IN-PERSON, Casa Grande, AZ

# PRICE ENGINEERING TRAINING COURSE OUTLINE

## FUNDAMENTALS – ALL ATTENDEES COMPLETE THESE

### PRICE SOFTWARE OVERVIEW

PTP 100\* | **Beginner**

Introduction to various Price All-In-One (AIO) software modules and product selection platform, online resources including priceindustries.com, and the digital Price Engineer's HVAC Handbook.



### MIXED AIR DISTRIBUTION SYSTEMS

PTP 1000\* | **Beginner**

Mixed Air Distribution Systems using Grilles, Registers and Diffusers (GRD) continue to be the most common air distribution system and have been around for nearly 100 years. This class reviews applicable ASHRAE standards, sound, pressure drop, air patterns, and some common applications.



### HVAC PRODUCTS OVERVIEW

PTP 300\* | **Beginner**

This class reviews various air distribution system options to allow for a high level understanding of what to consider when starting a new project including product fundamentals, relevant standards, and specifications.



### FUNDAMENTALS OF HVAC ACOUSTICS

PTP 2100\* | **Intermediate**

HVAC systems have an acoustical impact on building occupants. This class reviews various acoustical terminology and design criteria before addressing several HVAC systems and their noise considerations.



### DESIGNING FOR THERMAL COMFORT

PTP 501\* | **Beginner**

The goal of an HVAC system is to create a thermally-comfortable environment for a building's occupants. This class explores the scientific principles used to quantify thermal comfort and the methods that may be applied to design a thermally comfortable environment.



### FUNDAMENTALS OF AIR MOVING

PTP 4005\* | **Intermediate**

Terminal units have been used in overhead air distribution systems for decades. This class will discuss fundamentals of terminal unit operation and design as well as some of the standards and factors that impact selection.



## ELECTIVES – ATTENDEES COMPLETE BASED ON THEIR INTEREST †

### INSTALLATION CONSIDERATIONS

PTP 1026\* | **Intermediate**

ASHRAE standards 70 and 130 specify how performance data for GRD and Terminal units, respectively, is generated. While the resultant data is standardized, it is not always representative of actual installations. This class explores catalog data and how installation techniques affect performance.



### ACOUSTIC ANALYSIS

PTP 2400\* | **Intermediate**

Price Acoustic Analysis software assists in analyzing HVAC systems and selecting Noise Control products to meet project requirements. Attendees are encouraged to download Price All-In One (AIO) software on our website and request access to the Acoustic Analysis module ahead of this class.

### NOISE CONTROL PRODUCTS

PTP 2303\* | **Intermediate**

This class reviews Noise Control products and their relevant applications, factors affecting performance, and optimum inlet and outlet conditions. Attendees should leave with an understanding of what to consider when selecting and specifying Noise Control products.



### LABORATORY CONTROL DEVICES

PTP 3201\* | **Advanced**

Laboratory control devices are utilized in laboratory and healthcare HVAC systems and offer higher accuracy accuracy, greater turndown ratios, and faster speed of response compared to standard accuracy control devices. This class reviews options and benefits of laboratory control devices.

*Typical 1 day visit (8 hours) allows for 4-5 classes, factory and lab tour, PTC tours and lunch  
† PET Elective classes offered vary (typically 10) and are confirmed ahead of each PET*

# PRICE ENGINEERING TRAINING COURSE OUTLINE

## TERMINAL UNITS – VAV & FAN-POWERED

PTP 4100\* | **Intermediate**

Terminal units have been used for decades. This class explores various terminal unit configurations for a wide range of applications and conditions including relevant test standards.

## TERMINAL UNITS – FAN COILS & DOAS

PTP 4111\* | **Intermediate**

Dedicated outdoor air systems (DOAS) used in tandem with fan powered chilled water terminals or fan coils provide energy efficient solutions. This class also looks at some parallel systems used with DOAS air handlers.

## DOAS FAN-POWERED TERMINAL UNIT ADVANTAGES

PTP 4112 | **Advanced**

This class offers a brief introduction to series FPTU's with sensible coils, with the majority of time spent building on foundation concepts introduced in previous DOAS presentations. This class discusses more advanced topics such as DOAS sequencing and common pitfall of series FPTU with sensible cooling coil applications.

## VAV DIFFUSERS

PTP 4350\* | **Intermediate**

VAV diffusers can provide a high level of comfort and energy savings accomplished by the diffuser's inherent ability to maintain a constant discharge velocity and air pattern throughout the VAV airflow range. Product attributes and typical system designs are presented in this class.

## CONTROLS


PTP 4400\* | **Advanced**

HVAC Controls are the devices that make HVAC systems function as needed. A well designed system will provide comfort and control energy use. This class will review basic control theory and commonly used control devices to accomplish those functions.

## UNDERFLOOR AIR SYSTEMS

PTP 5000\* | **Intermediate**

Underfloor Air Distribution (UFAD) utilizes the raised access floor system plenum for distributing air into a space with superior flexibility and modularity through easy to install drop-in products. This class discusses design considerations and other relevant standards and codes.

 **Webinars available online with same or similar PTP number**

\* All classes are worth 1 Professional Development Hour (PDH)

## DISPLACEMENT VENTILATION

PTP 6000\* | **Intermediate**

Displacement Ventilation (DV) has been implemented for decades with success in reducing energy consumption in buildings while improving the Indoor Environmental Quality. This class will focus on the latest design methods and relevant codes and standards when applying DV including project examples.

## CHILLED BEAMS

PTP 7005\* | **Intermediate**

Chilled Beam systems use water and air to efficiently condition spaces and have been gaining traction for decades. This class covers the fundamentals of Chilled Beams and design considerations including project examples.

## CHILLED BEAM SYSTEM DESIGN

PTP 7008\* | **Advanced**

This class explores Chilled Beam software that allows for easy selection and system design based on project requirements. The class also provides step-by-step training by walking through several Chilled Beam project examples.

## HIGH PERFORMANCE SCHOOLS

PTP 9000\* | **Intermediate**

High Performance Schools (HPS) at Price presents a variety of efficient air distribution technologies that have achieved significant improvements for school systems throughout North America to help meet the modern demands of operating educational facilities. We recommend viewing or understanding PTP 6000 and PTP 7008 content before viewing PTP 9000.

## HEALTHCARE O.R. APPLICATIONS

PTP 9201\* | **Intermediate**

Operating Room (OR) requirements continue to evolve as a result of various factors including robotic surgery, hybrid/imaging systems and seismic suspension. This class reviews challenges and presents various solutions.

## OPTIMIZING LAB & CLEANROOM AIR DISTRIBUTION

PTP 9350\* | **Intermediate**

Laboratories and Auxiliary Healthcare projects involve a diverse application of HVAC equipment. This class reviews the unique needs and air distribution solutions for Patient, Isolation and MRI rooms, Pharmacies, and Labs.

## COMPUTATIONAL FLUID DYNAMICS

PTP 9800\* | **Intermediate**

Computer based analysis tools such as computational fluid dynamics (CFD) can aid in the design of modern HVAC systems and this presentation showcases various project examples to support leveraging this powerful design tool.

## RESOURCES

- + **Software:** Price All-In-One Engineering Edition is available at <https://www.priceindustries.com/software/all-in-one>
- + **Webinars:** Upcoming and recorded webinars are available at <https://www.priceindustries.com/education/classes>
- + **Handbook:** The digital Price Engineer's HVAC Handbook can be accessed at <https://info.priceindustries.com/handbook>

## QUESTIONS

For additional information, please contact the Price Events Team at [events@priceindustries.com](mailto:events@priceindustries.com) or your local Price Rep.

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