Arizona Heat Pump Council

FALL 2026

- Master Heat Pump Technician Certificate Program
- Heat Pump Installer Energy Skilled Certificate
  Recognized by the U.S. Dept. of Energy
- HVAC System Consultant Series
- Commercial Technician Series
- HVAC Certification Seminars
- Multiple Live Online Courses

Continuing Education Program

BECOME ENERGY SKILLED CERTIFIED IN HEAT PUMP INSTALLATION!

ENERGY SKILLED
RECOGNIZED BY THE U.S. DEPARTMENT OF ENERGY
Heat Pump Installation

NORTH AMERICAN TECHNICIAN EXCELLENCE
NATE
CERTIFYING THE FINEST IN HVACR

APPROVED
TESTING FACILITY
TRAINING PROVIDER

edu.elaz.org
Phone: 602.263.0115
education@elaz.org

Heat Pump Council Education

The Arizona Heat Pump Council (HPC) is part of the Electric League of Arizona (ELA) founded in 1960. HPC members are an active group of professionals who are committed to benefitting Arizonans through the use of energy efficient heating, ventilation, air conditioning, and refrigeration (HVACR) products and services. Visit www.ELAZ.org for more information.

Educational Opportunities

Since 1985, Arizona Heat Pump Council has offered a full array of continuing education opportunities for HVACR professionals. Thousands of individuals have chosen HPC courses to enhance their knowledge and skills in the industry.

- All HPC courses qualify for North American Technician Excellence (NATE) Continuing Education Hours.
- Many HPC courses qualify for Building Performance Institute (BPI) Continuing Education Hours.

NATE TRAINING PROVIDER

Certificate Programs

Master Heat Pump Technician

The Master Heat Pump Technician (MHPT) Program is designed specifically for the technician who is seeking to gain the skills and certification to take them to the next level in their career. Technicians completing this seven-course program with a "B" or better become Master Heat Pump Technicians and earn a patch to proudly display on their uniforms as well as a certificate of completion. All seven courses are offered each semester. We strongly recommend courses be taken in the order they are outlined. A one-time certificate fee is required – **see Course Registration Form to register**.

HVAC System Consultant

The HVAC System Consultant (HSC) Program is specifically designed for the individual in the position of consulting and designing the right system for their customers. The series is designed to give the consultant the knowledge and skills required to properly assess the customer's needs and to help the customer find the best system to meet those needs. Consultants completing the seven-course program receive a certificate of completion. A one-time certificate fee is required – **see Course Registration Form to register**.

Master Heat Pump Installer Energy Skilled Certificate

In alignment with our commitment to excellence, the ELA has expanded the Master Heat Pump Technician certificate curriculum to meet the knowledge requirements for the U.S. Department of Energy's Energy Skilled Heat Pump Installer designation. Contractors and students seeking the Energy Skilled Heat Pump Installer designation will be required to complete the Master Heat Pump Techni-cian Certificate Program along with three additional courses. This initiative underscores our dedication to producing highly skilled HVAC professionals equipped to meet the evolving demands of the industry.

Heat Pump Council Education Requirements

For existing members to maintain an active status in Heat Pump Council Referral Program, the following requirements apply:
Each company must accrue a minimum of eight continuing education credits (2 classes) during each semester (Spring & Fall). Contractors may select various employees to attend courses based on their specific needs. More than one person may attend the same class to receive credit as long as a passing grade of "C" or better is earned. By emailing, mailing or faxing your registration, you are committing to attend the designated classes and therefore are eligible to participate in the referral program.

ENERGY SKILLED

All prices are subject to change without prior notice. Evening courses include a light snack and beverages.

Master Heat Pump Technician Program

HPC 101 Refrigeration Theory & Systems Diagnosis

NATE

Session 1: August 17 & 19, 2026
Session 2: September 21 & 23, 2026
Time: 6:00pm - 9:30pm
Instructor: Rich Porter
Session 1 Location: Online
Session 2 Location: SRP Pera Club, 1 E. Continental Drive, Tempe, AZ 85281
Fees: $185 Non-Members/$155 Members
Credits: 4 Continuing Education Credits/7 NATE CEHs

Note: Included with this class is a SuperCool Slide Rule.

What You Can Expect: This course will review mechanical refrigeration theory and system troubleshooting. The four basic components, reversing valves, superheat, sub-cooling, sensible heat, latent heat and BTU's are all reviewed. This course will focus on heat pump operation and diagnosis. If you do not have service experience and/or refrigeration training, **Refrigeration Fundamentals** is a recommended prerequisite.

Who Should Attend: This class is designed for those wanting to master the heat pump refrigerant system. Technicians of all levels will benefit.

HPC 102 Charging, Piping, & Dehydration **Offered in person only, Fall 2026*

NATE

Dates: December. 10, 14 & 15, 2026
Time: 6:00pm - 9:30pm
Instructor: Kevin Styles
Location: SRP Pera Club, 1 E. Continental Drive, Tempe, AZ 85281
Fees: $243 Non-Members/$213 Members
Credits: 4 Continuing Education Credits/10.5 NATE CEHs

What You Can Expect: Did you know factory studies of failed compressors show that a large amount of compressor failures are caused by improper refrigerant levels? This is not a well-known fact in our industry. Refrigerant charge imbalances cause slow degradation of the compressor bearings, valves and motor windings. This results in compressor failures occurring some time after the charge becomes unbalanced, making the connection between refrigerant levels and malfunctions difficult. Improper piping and contaminants are also big offenders.

Who Should Attend: Technicians of all experience levels will benefit from this course.

HPC 103 Electrical Fundamentals for Heat Pumps

NATE

Session 1: August 25 & 27, 2026
Session 2: November 10 & 12, 2026
Time: 6:00pm - 9:30pm
Instructor: Carl Bartoli
Session 1 Location: Online
Session 2 Location: SRP Pera Club, 1 E. Continental Drive, Tempe, AZ 85281
Fees: $192 Non-Members/$162 Members
Credits: 4 Continuing Education Credits/7 NATE CEHs

What You Can Expect: This class will focus on basic electricity as it pertains to heat pump operations. Topics to be covered include basic electron theory, electromagnetism and PSC motor theory. You will understand how compressors run and start systems work. Having an understanding of capacitor and potential relay operation on an electron level can help the service technician diagnose and avoid malfunctions that are commonly overlooked.

Who Should Attend: Technicians of all experience levels will benefit from this course. Master Heat Pump Technician program.

HPC 104 Control Systems for Heat Pumps

NATE

Session 1: September 1 & 3, 2026
Session 2: November 17 & 19, 2026
Time: 6:00pm - 9:30pm
Instructor: Carl Bartoli
Session 1 Location: Online
Session 2 Location: SRP Pera Club, 1 E. Continental Drive, Tempe, AZ 85281
Fees: $192 Non-Members/$162 Members
Credits: 4 Continuing Education Credits/7 NATE CEHs

What You Can Expect: Participants will attain the knowledge to design an entire electrical system for a residential heat pump. You will also learn the theory of operations and diagnostics of heat pump control circuitry including calibration and testing of common brands of thermostats, cooling and heating anticipation circuits, and commonly used electromechanical and electronic defrost systems.

Who Should Attend: HVAC technicians who want a better working knowledge of heat pump controls.

HPC 105 Customer Service & Selling Skills

Session 1: September 2, 2026 — Session 1 Location: Online
Session 2: October 27, 2026 — Session 2 Location: ELA Training Center, 2702 N. 3rd Street, Suite 2035, Phoenix, AZ 85004
Time: 6:00pm - 9:30pm — Fees: $157 Non-Members/$127 Members
Instructor: Rich Porter — Credits: 4 Continuing Education Credits/3.5 NATE CEHs

What You Can Expect: What is the importance of quality service? How do you provide it? This real-world customer service program will help you develop the techniques to provide top quality service. Win with customers when they are angry or complaining. Listen and learn about what your customer needs. Do you know when to service and when to sell? There comes a time when it is no longer in your customer's best interest to repair the HVACR equipment any longer. Learn how to make your customer's lives better, educate the customer and arouse their interest; provide additional information and benefits, and offer maintenance agreements and/or new equipment.
Who Should Attend: This course is geared specifically to the HVAC service technician.

HPC 106 HVAC Code & Safety **Offered in person only, Fall 2026*

Dates: October 26 & 28, 2026 — Location: ELA Training Center, 2702 N. 3rd Street, Suite 2035, Phoenix, AZ 85004
Time: 6:00pm - 9:00pm — Fees: $329 Non-Members/$299 Members
Instructor: Travis Howard — Credits: 4 Continuing Education Credits/6 NATE CEHs

****New:*** Included in this class is a copy of the current ***2024 International Residential Code, a $175 value**.
What to Expect: This class is designed to make you more comfortable with the International Residential Code. In this interactive class, popular code issues and interpretations will be discussed. Come prepared to discuss your personal experiences with the Code.
Who Should Attend: Principals, supervisors and technicians who want a practical insight on code and safety in the mechanical trade.

HPC 107 Airflow Dynamics

Session 1: September 15 & 17, 2026 — Session 1 Location: Online
Session 2: November 2 & 4, 2026 — Session 2 Location: ELA Training Center, 2702 N. 3rd Street, Suite 2035, Phoenix, AZ 85004
Time: 6:00pm - 9:30pm — Fees: $192 Non-Members/$162 Members
Instructor: Rich Porter — Credits: 4 Continuing Education Credits/7 NATE CEHs

Note: Included in this class is a **Duct Calculator**.
What You Can Expect: Airflow is one of the most critical issues for customer comfort. Many comfort complaints and improper system operation problems are a result of poor air distribution. A thorough understanding of airflow dynamics can enable you to uncover and resolve system problems. This course will help you identify inadequate or excessive airflow issues. It will help you solve hot spot, drafty, noisy and stale air complaints. Frequently airflow problems can be easily solved by a minor adjustment or changing to a better register.
Who Should Attend: Anyone involved in estimating and home sales. Service technicians and installers will definitely benefit from this class.

Master Heat Pump Installer Energy Skilled Certificate

Recognized by the U.S. Dept. of Energy

Master Heat Pump Technician Certificate Program (HPC 101-HPC 107)

(See pages 2 & 3 for specific class details.)

HPC 111 Proper Installation Procedures (See page 4 for specific class information.)

HPC 162 HVAC Variable Capacity Systems

Session 1: October 12 & 14, 2026 — Location: ELA Training Center, 2702 N. 3rd Street, Suite 2035, Phoenix, AZ 85004
Session 2: October 12 & 14, 2026 — Location: Online
Time: 6:00pm-8:30pm — Fees: $233 Non-Members/$203 Members
Instructor: Travis Howard — Credits: 4 Continuing Education Credits/6 NATE CEHs

Note: Course will be held in-person for students, while at the same time, synchronously online to students who opt to attend remotely.
What You Can Expect: This course will discuss variable capacity systems that include equipment with compressors that are 2-Speed, 5-Speed, and Variable Frequency Drives including mini-splits. You will gain an understanding of the differences between a Mini-Split, Multi-Split, and Variable Refrigerant Flow system. We will discuss system operational sequences, system components and controls to help develop proper maintenance and diagnostic procedures used to troubleshoot and isolate common failures with Variable Capacity Systems.
Who Should Attend: Service Managers, service technicians and installation technicians.

HPC 166 HVAC Commissioning

Session 1: September 14, 2026 — Location: ELA Training Center, 2702 N. 3rd Street, Suite 2035, Phoenix, AZ 85004
Session 2: September 14, 2026 — Location: Online
Time: 6:00pm-8:30pm — Fees: $175 Non-Members/$145 Members
Instructor: Travis Howard — Credits: 4 Continuing Education Credits/3 NATE CEHs

Note: Included in this class is a copy of the **ANSI/ACCA 9 – (HVAC Quality Installation Verification Protocols) Standard**. Course will be held in-person for students, while at the same time, synchronously online to students who opt to attend remotely.
What You Can Expect: This course delves into the critical aspects of HVAC system performance, focusing on fault detection, commissioning procedures, and Quality Installation Verification Protocols (ACCA QI9). Interpretation and analysis of HVAC system documentation, such as mechanical specifications, mechanical drawings, control drawings, and test and balance reports.
Who Should Attend: Service Managers, service technicians, and installation technicians.

HVAC System Consultant Series

- **HPC 105 Customer Service & Selling Skills** (See page 3 for specific class details.)

- **HPC 106 HVAC Code & Safety** (See page 3 for specific class details.)

- **HPC 108 Wake Up To Heat Pumps**

Date: September 8, 2026 | Fees: $140 Non-Members/$110 Members
Time: 6:00pm - 8:00pm | Credits: 4 Continuing Education Credits/2 NATE CEHs
Instructor: Rich Porter | Location: Online

Note: **Recommended course for new members.**
What to Expect: Wake Up To Heat Pumps is a class designed to educate the student on all the benefits of Heat Pump operation. The hows and whys will be covered in depth, as well as the economical value that these systems provide. Natural Laws, Efficiency, Heat Transfer, and definitions are also covered in this class as well as why this climate is perfect for Heat Pumps.
Who Should Attend: This class is for anyone who wants a better understanding of this viable alternative to the standard electric or gas furnace.

- **HPC 111 Proper Installation Procedures**

Session 1: October 20 & 22, 2026 | Session 1 Location: Online
Session 2: November 16 & 18, 2026 | Session 2 Location: ELA Training Center, 2702 N. 3rd Street, Suite 2035, Phoenix, AZ 85004
Time: 6:00pm - 9:30pm | Fees: $205 Non-Members/$175 Members
Instructor: Rich Porter | Credits: 4 Continuing Education Credits/7 NATE CEHs

Note: Included in this class is a copy of the reviewed **ACCA Standard 5**.
What You Can Expect: This course focuses on all the skills required for proper installations of split and package heat pumps. You will learn the tricks of the trade and how to avoid common installation mistakes made in the field. Other topics include: proper trap and condensate design, brazing techniques, refrigerant line design and setup, flex duct installation and application, control wiring fundamentals, thermostat installation and more. Send your installer to this class to make your installation department more profitable as well as reduce post installation service problems.
Who Should Attend: This class is designed primarily for installers and those service technicians that want to gain knowledge of what proper installations should look like.

- **HPC 115 Manual J**

Dates: October 19 & 21, 2026 | Fees: $240 Non-Members/$210 Members
Time: 6:00pm - 9:00pm | Credits: 4 Continuing Education Credits/6 NATE CEHs
Instructor: Alex Williams | Location: ELA Training Center, 2702 N. 3rd Street, Suite 2035, Phoenix, AZ 85004

Note: Day two will include hands-on training; A laptop with a Manual J/load calculation software is highly recommended. (ELA will have a limited number of laptops available upon request). Included in this class is a copy of **ACCA's Manual J SAE**.
What You Can Expect: Learn about the basic principles of heat transfer, R-Values, heat transfer multipliers and important components of thermal envelope design often overlooked. A step-by-step example of single-zone, single-family, or detached calculation for a whole house will be reviewed using an ACCA approved Manual J software program on day two. Attendees will learn the fundamental processes involved in Manual J and be able to identify the data and components that form a load calculation. Sample calculations for multi-zone, variable air-volume systems, multi-zone split-coil systems, and mobile home load will also be discussed.
Who Should Attend: Anyone involved in estimating or in-home sales including technicians, supervisors, and owners looking to increase technical skills.

- **HPC 137 Consulting for Better Sales**

Date: September 24, 2026 | Fees: $140 Non-Members/$110 Members
Time: 6:00pm - 9:00pm | Credits: 4 Continuing Education Credits/3 NATE CEHs
Instructor: Amy Ferguson | Location: ELA Training Center, 2702 N. 3rd Street, Suite 2020, Phoenix, AZ 85004

What You Can Expect: This class is designed to give added value to your customer. Its emphasis is on the importance of taking the opportunity to make additions or adjustments to your customer's system to improve comfort. This course will also discuss common system problems that affect comfort and operating cost. Sales techniques and technical training covered in the HVAC System Consultant Series will be briefly recapped as well as offering additional suggestions on how to improve your presentation style and effectiveness.
Who Should Attend: Sales Managers, technicians or anyone who has the responsibility of customer in-home sales and customer satisfaction.

NATE Certification Exam Seminar

**Note - All day course includes breakfast snacks, full lunch and afternoon snacks.*

- **HPC 167 - NATE Certification Exam Overview & Testing**

Dates: November 13, 2026 | Fees: $550 Non-Members/$520 Members
Time: 8:00am-4:30pm | Credits: 4 Continuing Education Credits
Instructor: Rich Porter | Location: ELA Training Center, 2702 N. 3rd Street, Suite 2035, Phoenix, AZ 85004

Note: We strongly recommend that before taking this course you are certified as an Arizona Heat Pump Council Master Heat Pump Technician or are re-certifying for a NATE Exam you've previously passed in preparation for the exams. Please bring a valid driver's license or state issued ID. Laptop required for exam; ELA will have a limited number of laptops available upon request.
What You Can Expect: This course will provide the student with study knowledge in preparation for the 1.5-hour Core Exam and 2.5-hour Specialty Exam for North American Technician Excellence (NATE) Certification. Topics covered include safety, tools, heat transfer, comfort, basic science, basic electrical, installation, planned maintenance, system components, and design considerations. Sample test questions will be reviewed. The NATE Exams will be administered by the certified proctor directly after the exam overview.
Who Should Attend: This class is designed for the Master Heat Pump Technician, advanced technician, system designers, and other HVAC professionals. **1 hour online information session required on October 6, 2026 from 6:00-7:00pm.**

Business & Introductory Courses

HPC100L – Lab Refrigeration System Diagnostics

** Class and Hands-On Lab Limited to 12 Students*

Date: September 28, 2026
Time: 6:00pm - 9:30pm
Instructor: Rich Porter
Fees: $167 Non-Members/$137 Members
Credits: 4 Continuing Education Credits/3 NATE Continuing Education Hours
Location: ELA Training Center, 2702 N. 3rd Street, Suite 2020, Phoenix, AZ 85004

Note: This is a hands-on lab and requires the student to bring some diagnostic tools. Meters, temperature clamps, thermometers, manifold gauges and digital Manometers or Magnehelic gauges will be needed for this class.

What You Can Expect: This new course is a "Hands-On" lab designed to give the ENTRY level technician a better understanding of where and how to get the readings necessary to properly diagnose any system. This class focuses on the fundamentals needed to work safely and efficiently around all residential/ light commercial systems. Special emphasis on voltage, amperage, capacitors, superheat, sub cool, static pressure, and temperature split as well as preventative maintenance procedures are the main focus of this 3-hour lab.

Who Should Attend: Especially suited for the ENTRY level technicians. Anyone new to the industry, or with less than 2 years' experienced individuals will benefit the most from this class. Maintenance/warranty repair technicians and anyone who wants to brush up on the BASICS.

HPC 116 Duct Design/Manual D

Dates: October 5 & 7, 2026
Time: 6:00pm - 8:30pm
Instructor: Travis Howard
Fees: $240 Non-Members/$210 Members
Credits: 4 Continuing Education Credits/7 NATE CEHs/3.5 BPI CEUs
Location: ELA Training Center, 2702 N. 3rd Street, Suite 2020, Phoenix, AZ 85004

Note: Included in this class is a copy of the reviewed **ACCA Residential Duct Systems/Manual D**.

What You Can Expect: Duct system types, application and selection (examples of duct sizing calculation, constant volume system, flexible duct, junction box systems, multiple zones, and two story systems). How duct leakage affects air quality and the combined performance of the envelope equipment systems. (duct losses and noise control).

Who Should Attend: This class is designed for the Master Heat Pump Technician, advanced technician, system designers and other HVAC professionals.

HPC 126 Refrigeration Fundamentals

Date: August 12, 2026
Time: 6:00pm - 9:30pm
Instructor: Rich Porter
Fees: $157 Non-Members/$127 Members
Credits: 4 Continuing Education Credits/3.5 NATE Continuing Education Hours
Location: ELA Training Center, 2702 N. 3rd Street, Suite 2020, Phoenix, AZ 85004

What You Can Expect: This class covers all the fundamentals of refrigeration and is highly recommended to take prior to the popular Refrigeration Theory & System Diagnosis.

Who Should Attend: This is a great class for beginning technicians and non-technical staff but is also highly recommended for anyone wanting to brush up on their refrigeration knowledge.

HPC 144 Choosing the Right System/Manual S

Date: October 13, 2026
Time: 6:00pm - 9:30pm
Instructor: Rich Porter
Fees: $193 Non-Members/$163 Members
Credits: 4 Continuing Education Credits/3.5 NATE Continuing Education Hours
Location: ELA Training Center, 2702 N. 3rd Street, Suite 2020, Phoenix, AZ 85004

What You Can Expect: This class will teach you how to properly select the new air conditioner or heat pump for your customer using ACCA's Manual S standards. You will learn how to interpret manufacturers' data and apply it to a new A/C system and how one manufacturer's air conditioner will do the job and where another's won't.

Who Should Attend: Anyone who is responsible for the sales and installation of new comfort systems in a customer's home.

HPC 149 HVAC Troubleshooting

Date: September 22, 2026
Time: 6:00pm - 9:00pm
Instructor: TBD
Fees: $140 Non-Members/$110 Members
Credits: 4 Continuing Education Credits/3.5 NATE Continuing Education Hours
Location: ELA Training Center, 2702 N. 3rd Street, Suite 2020, Phoenix, AZ 85004

What You Can Expect: This course will discuss proper steps and procedures for effective troubleshooting. We will discuss troubleshooting tool usage, calibration and care. We will review troubleshooting charts for electrical and mechanical heating and cooling.

Who Should Attend: New service technicians and all installation technicians.

HPC 155 Gas Furnace Safety & Operation

Date: November 9, 2026
Time: 6:00pm - 8:30pm
Instructor: Travis Howard
Fees: $233 Non-Members/$203 Members
Credits: 4 Continuing Education Credits/3.5 NATE CEHs/1.75 BPI CEUs
Location: ELA Training Center, 2702 N. 3rd Street, Suite 2035, Phoenix, AZ 85004

Note: Included in this class is a copy of the **ESCO Gas Heating: Furnaces, Boilers, Controls & Components training manual**.

What You Can Expect: This class focuses on proper operation and safety for residential gas heating systems. Practices for servicing and testing to ensure safe operation will be reviewed, and will cover combustion, furnace construction, furnace controls, ignition systems, sequence of operation and basic service procedures.

Who Should Attend: Service technicians and installation technicians.

HPC 156 – Variable Frequency Drives

Date: September 29, 2026
Time: 6:00pm - 8:30pm
Instructor: Travis Howard
Fees: $140 Non-Members/$110 Members
Credits: 4 Continuing Education Credits/3.5 NATE CEHs
Location: ELA Training Center, 2702 N. 3rd Street, Suite 2035, Phoenix, AZ 85004

What You Can Expect: An overview of modern AC VFD design and component layout. An overview of AC Induction Motors and how they work with VFDs. How motors in variable fan and pump applications correspond to fan/pump affinity laws, how this saves energy and why VFDs are used for these purposes.

Who Should Attend: Principals, Supervisors and Technicians who want to better understand this and who want to deliver a higher level of service and create a more proficient Technician in the process

**Note - Evening courses include a light snack, iced tea and lemonade.*

Advanced Technician Courses

HPC 139 Duct Diagnostics & Repair

Date: October 15, 2026 | Fees: $193 Non-Members/$163 Members
Time: 5:30pm - 9:00pm | Credits: 4 Continuing Education Credits/4 NATE CEHs
Instructor: Chris Martinez | Location: ELA Training Center, 2702 N. 3rd Street, Suite 2035, Phoenix, AZ 85004

Note: Included in this class is a copy of **ACCA's Technician's Guide for Duct Diagnostics and Repair.**

What You Can Expect: This class will help you understand major duct issues concerning efficiency, comfort, health, and safety. Get practical tips on installation, repair, testing and diagnosing duct systems.

Who Should Attend: This class is designed for the Master Heat Pump Technician, advanced technician, and system designers.

HPC 147 Commercial Refrigeration

Date: November 23, 2026 | Fees: $145 Non-Members/$115 Members
Time: 6:00pm-9:00pm | Credits: 4 Continuing Education Credits/3.5 NATE CEHs
Instructor: Kevin Styles | Location: ELA Training Center, 2702 N. 3rd Street, Suite 2035, Phoenix, AZ 85004

What You Can Expect: This course will discuss commercial refrigeration systems, including walk-in refrigerators and freezers. Operating conditions, refrigerants and refrigerant selection will be reviewed. The focus will be on wiring, defrost control and operating strategies, and we will discuss refrigeration theory as it applies to product cooling. Mechanical and electrical troubleshooting will also be covered.

Who Should Attend: This class is designed for the Master Heat Pump Technician, Commercial Technician, and other advanced level technicians.

Prerequisites: HPC 101 Refrigeration Theory & Systems Diagnosis

HPC 162 HVAC Variable Capacity Systems *(see page 3 for specific class information.)*

HPC 163 Advanced HVAC Troubleshooting

Dates: October 1, 2026 | Fees: $175 Non-Members/$145 Members
Time: 6:00pm-9:00pm | Credits: 4 Continuing Education Credits/3 NATE CEHs
Instructor: TBD | Location: ELA Training Center, 2702 N. 3rd Street, Suite 2035, Phoenix, AZ 85004

What You Can Expect: This course will help the technician develop a systematic approach to HVAC troubleshooting. We will begin developing and working out solutions and methods for diagnosing electrical, mechanical, refrigerant cycles and air flow. We will learn how to diagnose advanced components such as communicating controls and variable frequency drives.

Who Should Attend: Service Technicians and Installation Technicians.

HPC 165 Design & Operation of Commercial Chilled Water Systems

Dates: December 7 & 9, 2026 | Fees: $205 Non-Members/$175 Members
Time: 6:00pm-9:00pm | Credits: 4 Continuing Education Credits/6 NATE CEHs
Instructor: Kevin Styles | Location: ELA Training Center, 2702 N. 3rd Street, Suite 2020, Phoenix, AZ 85004

What You Can Expect: This two-night class provides an overview of the design & operation of building chilled water systems including piping design systems and equipment.

Who Should Attend: This class is designed for the Master Heat Pump Technician, Commercial Technician, and other advanced level technicians.

HVAC Lab Courses

HPC100L – Lab Refrigeration System Diagnostics

Date: September 28, 2026 | Fees: $167 Non-Members/$137 Members
Time: 6:00pm - 9:30pm | Credits: 4 Continuing Education Credits/3 NATE Continuing Education Hours
Instructor: Rich Porter | Location: ELA Training Center, 2702 N. 3rd Street, Suite 2020, Phoenix, AZ 85004

Note: This is a hands-on lab and requires the student to bring some diagnostic tools. Meters, temperature clamps, thermometers, manifold gauges and digital Manometers or Magnehelic gauges will be needed for this class.

What You Can Expect: This new course is a "Hands-On" lab designed to give the ENTRY level technician a better understanding of where and how to get the readings necessary to properly diagnose any system. This class focuses on the fundamentals needed to work safely and efficiently around all residential/light commercial systems. Special emphasis on voltage, amperage, capacitors, superheat, sub cool, static pressure, and temperature split as well as preventative maintenance procedures are the main focus of this 3-hour lab.

Who Should Attend: Especially suited for the ENTRY level technicians. Anyone new to the industry, or with less than 2 years' experienced individuals will benefit the most from this class. Maintenance/warranty repair technicians and anyone who wants to brush up on the BASICS.

HPC200L - HVAC Electrical Workshop (Hands-On Lab)

Dates: December 1 & 3, 2026 | Fees: $240 Non-Members/$210 Members
Time: 5:00pm - 9:00pm | Credits: 4 Continuing Education Credits/7 NATE CEHs
Instructor: TBD | Location: ELA Training Center, 2702 N. 3rd Street, Suite 2035, Phoenix, AZ 85004

Note: Students are required to attend the lecture **and** lab for credit. Students will need to bring tools on day two.

What You Can Expect: Many of the components in an HVAC system are electrically operated. HVAC systems operate using different voltages. This combined lecture + hands-on lab workshop is designed to teach participants about HVAC high and low voltage. You will gain an understanding of the different high voltages used in HVAC, as well as low voltage (24 volts), used to power thermostats, circuit boards, & other control devices to operate the system. The hands-on lab component will allow participants assemble electrical training boards, make them function, troubleshoot, & diagnose faults.

Who Should Attend: Especially suited for the ENTRY level apprentices. Anyone new to the industry, or with less than 2 years' experienced individuals will benefit the most from this class. Installers and anyone who wants to brush up on the electrical BASICS.

HPC202L - Airflow & Ductwork

Dates: November 5 & 6, 2026 | Fees: $240 Non-Members/$210 Members
Lecture: November 5, 2026 | Credits: 4 Continuing Education Credits/7 NATE CEHs
Time: 6:00pm - 8:30pm | Location: ELA Training Center, 2702 N. 3rd Street, Suite 2035, Phoenix, AZ 85004
Lab: November 6, 2026 | Lab Location: Howard Air Service Center, 13235 N Cave Creek Rd, PHX, AZ 85022
Time: 8:30am - 12:00pm | Instructor: Travis Howard

Note: Students are required to attend the lectures and lab for credit. Students will need to bring tools on day two.

What You Can Expect: Students will delve into static pressure and its relationship to airflow performance tables throughout this course. They will also learn to determine the airflow rate for various types of equipment, the necessary airflow for each room in a home, and ensure proper distribution. In the lab the students will learn how to assemble duct fitting that meet industry standards set forth by the International Residential Code (IRC), Sheet Metal And Air Conditioning Contractors National Association (SMACNA), and ACCA QI9 for verifying the quality of HVAC installations.

Who Should Attend: This class is designed for the Master Heat pump Technician, advanced technician, and system designers.

FALL 2026 COURSE REGISTRATION

Special Discounts May Apply

The Member Rate applies to contractors that are members of The Electric League of Arizona. For more information on how to take advantage of these great rates and other benefits, call 602-263-9391.

Student Name: _____ Date: _____

Company: _____ ***E-mail: _____

Position: _____

Mailing Address: _____ City: _____ State: Arizona

Zip: _____ Daytime Phone: _____ ***Fax #: _____

Person/Company responsible for payment: _____

Are you a member of the ELA? ☐ Yes ☐ No

*** We may use this fax number or email address to inform you of similar educational courses. **Email required**.

Cancellation Policy and No-Shows

A full refund will be issued as long as **written notice is received 48 hours** prior to the class starting time. Due to the number of courses held and registrations received, we do not provide written or verbal confirmation. Returned checks are subject to a $30.00 returned check fee. **All registrations received by email, mail or fax are confirmed registrations unless cancelled within the proper time frame. Participants are charged the full fee amount if they register but do not attend. There are no refunds for no-shows.**

** _____Please initial here to indicate you have read, understood, and agreed to this cancellation policy.

Rates:	Non-Member Rate	Member Rate
☐ **Master Heat Pump Technician Cert. Fee**	$60	$40
☐ **Master Heat Pump Installer Cert. Fee**	$60	$40
☐ HPC 100L – Lab Refrigeration System Diagnostics	$167	$137
☐ HPC 101 Refrigeration Theory & Systems Diagnosis (Online)	$185	$155
☐ HPC 101 Refrigeration Theory & Systems Diagnosis (In Person)	$185	$155
☐ HPC 102 Charging, Piping & Dehydration (In Person)	$243	$213
☐ HPC 103 Electrical Fundamentals for Heat Pumps (Online)	$192	$162
☐ HPC 103 Electrical Fundamentals for Heat Pumps (In Person)	$192	$162
☐ HPC 104 Control Systems for Heat Pumps (Online)	$192	$162
☐ HPC 104 Control Systems for Heat Pumps (In Person)	$192	$162
☐ HPC 105 Customer Service & Selling Skills (Online)	$157	$127
☐ HPC 105 Customer Service & Selling Skills (In Person)	$157	$127
☐ HPC 106 HVAC Code & Safety (In Person)	$329	$299
☐ HPC 107 Airflow Dynamics (Online)	$192	$162
☐ HPC 107 Airflow Dynamics (In Person)	$192	$162
☐ **HVAC System Consultant Series Cert. Fee**	$50	$30
☐ HPC 108 Wake Up to Heat Pumps	$140	$110
☐ HPC 111 Proper Installation Procedures (Online)	$205	$175
☐ HPC 111 Proper Installation Procedures (In Person)	$205	$175
☐ HPC 115 Manual J	$240	$210
☐ HPC 116 Duct Design/Manual D	$240	$210
☐ HPC 126 Refrigeration Fundamentals	$157	$127
☐ HPC 137 Consulting for Better Sales	$140	$110
☐ HPC 139 Duct Diagnostics & Repair	$193	$163
☐ HPC 144 Choosing the Right System/Manual S	$193	$163
☐ HPC 147 Commercial Refrigeration	$145	$115
☐ HPC 149 HVAC Troubleshooting	$140	$110
☐ HPC 155 Gas Furnace Safety & Operations	$233	$203
☐ HPC 156 Variable Frequency Drives	$140	$110
☐ HPC 162 HVAC Variable Capacity Systems (In Person)	$233	$203
☐ HPC 162 HVAC Variable Capacity Systems (Online)	$233	$203
☐ HPC 163 Advanced HVAC Troubleshooting	$175	$145
☐ HPC 165 Design & Operation of Commerical Chilled Water Systems	$205	$175
☐ HPC 166 HVAC Commissioning (In Person)	$175	$145
☐ HPC 166 HVAC Commissioning (Online)	$175	$145
☐ HPC 167 NATE Exam Overview & Testing (includes testing fees)	$550	$520
☐ HPC 200L HVAC Electrical Workshop (Lecture + Hands-On Lab)	$240	$210
☐ HPC 202L Airflow & Ductwork	$240	$210

**Note: Online and In-person sessions differ for every class; Please review carefully when selecting your session.*

Method of Payment: Payment must be received prior to the start of class. ***Please provide email above to receive credit card receipt.***

Total: _____ Check enclosed #: _____ ☐ M/C ☐ Visa

Credit Card#: _____ 3 Digit Code: _____ Exp. Date: _____

Exact Name on Card: _____ Signature: _____

Billing Address if different: _____ City: _____ State: AZ Zip: _____

REGISTER ONLINE AT: ***http://edu.elaz.org***

Or mail registration and payment to: Arizona Heat Pump Council, 2702 N. 3rd St, Suite 2020, Phoenix, AZ 85004, or fax to: 602-274-0029 or email to education@elaz.org. Call 602-263-0115 for more information. ***www.elaz.org***

Arizona Heat Pump Council
2702 N. 3rd Street
Suite 2020
Phoenix, AZ 85004

Quality Instructors = Quality Education

Carl Bartoli

Mr. Bartoli has been in the HVCR industry for 45 years and is starting his 38th year with Donley AC & Plumbing. Carl oversees air conditioning service, equipment sales & installation. Mr. Bartoli takes an active role in training Donley's 60 employees, for technical, marketing and customer service. Carl supports and is a member of 5 Advisory boards for trade schools in the valley. Training HVAC, Plumbing & Construction students. He often speaks at these trade schools and enjoys mentoring new members to our HVAC/Plumbing community.

Travis Howard

Mr. Howard has been working in the HVAC industry in the Phoenix metro area since graduating from Universal Technical Institute (UTI) June 1990. Travis has spent his career in residential and light commercial services. He is NATE certified and has the Heat Pump Master Technician certification through the Arizona Heat Pump Council. As the HVAC Training Manager at Service Champions, he oversee the Installer Training Programs, supports and leads the HVAC Install Trainers, and is responsible for all updates and designs to the hands-on training centers throughout the country for the organization.

Rich Porter

Mr. Porter has been in the service industry for over half his life. He is a NCI CO/Combustion Analyst and is also N.A.T.E. certified in the installation and service of gas furnaces, air conditioners, and heat pumps. Rich is proud to serve on the Professional Advisory Committees for RSI, AAI and UEI. He enjoys working with other industry professionals to help shape curriculums and better prepare students for a career in the HVACR industry.

Kevin Styles

Mr. Styles has over 23 years of experience in multiple areas of the HVACR industry. As service manager of Arizona's Dukes of Air, he leads a team of HVAC technicians, offers advanced technical training, and ensures personnel can deliver quality customer service. Kevin's extensive knowledge of residential air conditioning and commercial and industrial refrigeration allows him to pass on his knowledge through valuable technical training and by building on customer relation skills.

Chris Martinez

With over 15 years of experience in the construction industry, a successful career has been built specializing in HVAC and Home Performance. Beginning as a construction laborer, steady advancement led to the current role of Project Manager at Ideal Air, applying 13 years of focused expertise in HVAC systems to every project. Certified by BPI, NATE, and EPA, a strong combination of technical knowledge and a commitment to energy-efficient solutions ensures that each project exceeds industry standards for performance and sustainability. As a dedicated leader, priority is placed on efficiency, safety, and customer satisfaction while managing teams to deliver high-quality results.

Alex Williams

Alex is co-owner of Ideal Energy and has a passion for residential energy efficient home construction and mechanical design. After starting his career fresh out of college installing solar photovoltaic panels, he found himself analyzing energy usage in similar sized homes and discovered two very similar homes could be using a drastically different amount of energy. He questioned why this could be and through research found the concept of Building Performance. Alex oversees all aspects of Ideal Energy's construction operations, energy efficiency and mechanical design. He holds a BA from ASU in Design Studies with an emphasis on the Built Environment.