



## Continuing Education Schedule and Courses

[Modify Shared Page](#) ▼

## Continuing Education Schedule

Date	Course Title	Location(s)	Contact	Size	Time
9/21/2018	Indoor Air Quality Management	Boaz Library 404 Thomas Ave Boaz, AL 35957	Albertville (256-878-0381)	30	12:00PM - 4:00PM
9/27/2018	Mini-Split with Inverter Technology	Wittichen Supply Birmingham Training Room	Birmingham (205-251-8203)	25	12:00PM - 4:00PM
10/4/2018	Rheem Inverter Systems	Boaz Library 404 Thomas Ave Boaz, AL 35957	Albertville (256-878-0381)	25	8:00AM - 12:00PM
10/11/2018	Rheem Inverter Systems	Wittichen Supply Tuscaloosa Training Room 3015 10th Avenue Tuscaloosa AL 35401	Tuscaloosa (205-759-5107)	20	8:00AM - 12:00PM
10/15/2018	Mini-Split with Inverter Technology	Wittichen Supply Tuscaloosa Training Room 3015 10th avenue Tuscaloosa AL 35401	Tuscaloosa (205-759-5107)	25	8:00AM - 12:00PM
10/16/2018	Mini-Split with Inverter Technology	2912 3rd ave No. Birmingham , AL. 35057	Birmingham (205-251-8203)	25	12:00PM - 4:00PM
10/16/2018	Mini-Split with Inverter Technology	Wittichen Supply Birmingham Training Room	Birmingham (205-251-8203)	25	12:00PM - 4:00PM
10/25/2018	Coil Cleaning	Wittichen Supply CO Tuscaloosa Training Room 3015 10th Avenue Tuscaloosa AL 35401	Tuscaloosa (205-759-5107)	25	12:00PM - 4:00PM
10/29/2018	Mini-Split with Inverter Technology	Southern Union College 1701 Lafayette Pkwy Opelika, AL 36801 CIM Building	Opelika (334-741-1008)	40	8:00AM - 12:00PM
11/1/2018	Mini-Split with Inverter Technology	<b>Sheffield Store Conference Room</b>	Sheffield (256-381-2280)	20	8:00AM - 12:00PM
11/7/2018	Indoor Air Quality Management	Wittichen Supply Co Tuscaloosa Training Room 3015 10th Avenue Tuscaloosa AL 35401	Tuscaloosa (205-759-5107)	20	8:00AM - 12:00PM
11/9/2018	Total System Protection	Boaz Library 404 Thomas Ave Boaz, AL 35957	Albertville (256-878-0381)	30	12:00PM - 4:00PM

## Continuing Education Courses

Course Title	Course Description	Credits	Cost	Provider
<b>90 Plus Gas Furnaces</b>	The 90 Plus Gas Furnace training program explores the many aspects of installing, servicing, and diagnosing single and two-stage 90 plus gas furnaces. Installing procedures discussed include converting the furnaces to meet various applications, Cat. IV venting, high altitude applications, LP conversion, twinning, set up, and commissioning. Service and maintenance procedures include, sequence of operation (single and two-stage), key components, proper component diagnostics, and component replacement guidelines.	4	\$75	Rheem

<b>A/C System &amp; Capacity Analysis</b>	Learn to balance indoor air flow, measure sensible heat, latent heat, & heat removal.	<b>4</b>	<b>\$50</b>	GSCC
<b>Basic Computer Skills Training for HVAC Contractors</b>	This course is designed to impart basic computer skills to HVAC contractors. This in turn will inform the contractors of the benefits of conducting daily operations via a basic computer system. In addition, this course will provide class participants the opportunity to gain hands-on computer experience.	<b>4</b>	<b>\$50</b>	GSCC
<b>Basic Management Concepts for HVAC Contractors</b>	This course will cover legal and business requirements, personnel management, risk management, and business failures.	<b>4</b>	<b>\$50</b>	GSCC
<b>Blood Borne Pathogens</b>	This course provides vital information regarding the prevention of contracting viruses and infections through blood borne pathogens, thereby providing a safe workplace for employees.	<b>4</b>	<b>\$50</b>	GSCC
<b>Business Law Assets and Liabilities</b>	The participants will learn their rights and liabilities as they relate to written and oral agreements, legality, organization types, tort liability, etc.	<b>4</b>	<b>\$50</b>	GSCC
<b>Cardiopulmonary Resuscitation (CPR)</b>	This course will cover basic mechanics of respiration; inadequate breathing; maintaining open air way; rescue breathing for a victim in respiratory arrest; and management of an obstructive airway.	<b>4</b>	<b>\$50</b>	GSCC
<b>Cleaning Up A Compressor Burnout</b>	Course Description (Use Attachments if Necessary): This course the proper procedures to follow for cleaning up a refrigeration or A/C system after you have a compressor burn-out. Anticipated Outcome: The contractor will lean informative and practical information to help them get it right the first time in order to save time and money.	<b>2</b>	<b>\$50</b>	Sporlan
<b>Coil Cleaning</b>	Coil Cleaning: The Clean Coil Program is a comprehensive seminar dedicated to the safe and proper procedure to clean evaporator and condenser coils, window units, and electronic air filters. The program will help the contractor determine which cleaning method should be utilized for a particular job based on the type and condition of the unit. The contractor will also learn the benefits of having clean coils and become familiar with the latest coil cleaning techniques. (Approved for CEC Alabama and Georgia 2 hour)	<b>2</b>	<b>\$50</b>	Nu-Calgon
<b>Comfort Control 2 System (Serial Communication)</b>	In this course, participants will learn the advantages of serial communications and understand the components necessary for a serial communicating system. They will learn fundamental communication concepts and understand the advantages of a serial communicating system for the consumer and the technician.	<b>4</b>	<b>\$75</b>	Rheem
<b>Comfort Control System</b>	This program explores the latest technology in compressor control and protection. Learn how the control utilizes a microprocessor for active protection and sealed contacts to increase compressor reliability.  This program teaches how to check the ESP (External Static Pressure) of a duct system with the use of a Magnehelic gauge. Students will learn that Variable Speed motors as well as X-13 and PSC motors must be applied to duct systems that do <b>not</b> exceed the ESP for which the motors are designed to operate. By determining the ESP of the duct system, it can be used to determine the airflow (CFM) of the system.	<b>4</b>	<b>\$55</b>	Rheem

<b>Compressor Failures - A Systems Approach</b>	<p>Course Description (Use Attachments if Necessary): Understanding mechanical compressor failures, how to diagnose them, and how to prevent repeat failures by looking at the system components and fixing the problem.</p> <p>Anticipated Outcome: Knowing how to diagnose a compressor failure and then how to address the system problem that lead to the failure. We hope to prevent repeat failures.</p>	<b>4</b>	<b>\$50</b>	Sporlan
<b>Controlling System Contamination</b>	<p>Course Description (Use Attachments if Necessary): Understanding air conditioning system contamination, their origin, cause, prevention, and clean-up. The course also discusses proper installation of system clean-up components.</p> <p>Anticipated Outcome: We expect the attendees to gain practical knowledge on how to prevent and correct HVAC system contamination.</p>	<b>4</b>	<b>\$50</b>	Sporlan
<b>Customer Relations</b>	Contractors learn who their customers are, and what they want.	<b>4</b>	<b>\$50</b>	GSCC
<b>Electrical Safety for HVAC Contractors</b>	This course takes a comprehensive look at electrical safety issues in the workplace, concentration on HVAC.	<b>4</b>	<b>\$50</b>	GSCC
<b>First Aid</b>	This course will cover descriptions of closed and open injuries; general procedures of wound care; specific considerations and procedures in caring for face and scalp wounds, nosebleeds, eye injuries, neck wounds, abdominal injuries to the genitalia; procedures for dressing and bandaging wounds.	<b>4</b>	<b>\$50</b>	GSCC
<b>Gas Furnace Controls: Non-Communicating</b>	Furnaces produced today utilize a central electronic control to monitor and manage furnace operations. Understanding furnace controls is essential for developing technician proficiency, reducing unnecessary replacements, and improving consumer satisfaction. The Gas Furnace Controls program begins with a general sequence of operation and an overview of components and their function. Building on the general information the program then offers details regarding specific controls, interpreting control, and non-control diagnostic information. Also, covered in this training program are the principles of flame rectification and furnace twinning. Knowing that inadequate indoor airflow is very detrimental to system performance, the final aspect of this course focuses on understanding and measuring system airflow.	<b>4</b>	<b>\$55</b>	Rheem
<b>Head Pressure Control - More Bang For Your Buck</b>	This course covers the use of air-side and refrigerant-side components for controlling the head pressure in an A/C or Refrigeration system. The contractor will learn of the operating efficiencies that are gained and cost savings that are realized by controlling head pressure.	<b>2</b>	<b>\$50</b>	Sporlan
<b>Heat Pumps: Demand Defrost Controls</b>	Recognizing that demand defrost controls are often misunderstood and misdiagnosed, this training program reviews the details of demand defrost. Beginning with a fundamental understanding of frost formation the training then discusses how defrost is accomplished and the basic control types. The program provides detailed information on demand defrost, including control logic and changing termination settings. Discussion of the three primary variations of demand controls is provided. This includes the unique features, diagnostic aids, and control replacement tips. The training continues with a section focusing on diagnosing non-control issues. Knowing that inadequate indoor airflow is very detrimental to system performance, the final aspect of	<b>4</b>	<b>\$55</b>	Rheem

this course focuses on understanding and measuring system airflow.

<b>Home Standby Generator Training</b>	<p>The course includes the following topics:</p> <ol style="list-style-type: none"> <li>1. Learning the features and benefits of the Home Generator Systems.</li> <li>2. Proper sizing based on customer's home size and amp rating.</li> <li>3. Locating product on property to meet code and safety requirements.</li> <li>4. Learning complete installation instructions for:               <ol style="list-style-type: none"> <li>(a) 100 or 200 amp Automatic Transfer Switch,</li> <li>(b) Air Conditioning Control Module, and</li> <li>(c) Load Control - Power Management System</li> </ol> </li> </ol> <p>In addition, the students will receive a binder containing complete course information, plus worksheets for sizing and property placement, and a CD containing complete installation, logic, and service manuals for the entire product line.</p>	<b>4</b>	<b>\$65</b>	Rheem
<b>Improve Your Cash Flow by Plugging Your Profit Leaks</b>	<p>This course is specifically designed to provide HVAC business owners and managers with the knowledge and tools needed to manage and improve cash flow.</p>	<b>2</b>	<b>\$60</b>	Tina White, CPA
<b>Improving Compressor Reliability: A Systems Approach</b>	<p>Compressor failure is often attributed to one or more factors external to the compressor. Taking a "systems" approach, this program discusses how each system impacts the compressor and actions a technician can take to improve compressor reliability.</p> <p>Determining System Airflow with the use of a Magnehelic gauge will be taught and demonstrated. Incorrect system airflow is the most likely culprit to affect compressor reliability.</p>	<b>4</b>	<b>\$55</b>	Rheem
<b>Increase Your Sales by Narrowing Your Focus</b>	<p>This course is specifically designed to provide HVAC business owners and managers with the knowledge and tools needed to create a strategic and operational plan. A Strategic Plan looks at the big picture from a long range perspective whereas the Operational Plan represents the specific tactics for carrying out the Strategic Plan from year to year.</p>	<b>2</b>	<b>\$60</b>	Tina White, CPA
<b>Indoor Air Quality Management</b>	<p>Indoor Air Quality Management: The seminar covers the past, present and future of Indoor Air Quality. Topics covered in the session: how poor IAQ impacts a business, common causes of poor IAQ, EPA classifications of symptoms, contaminants and buildings, microbiologic contaminants, Legionella and Stachybotrys, filtration methods and devices, and proper preventative maintenance. ( Approved for CEC Alabama and Georgia 2 hours)</p>	<b>2</b>	<b>\$50</b>	Nu-Calgon
<b>Installation &amp; Troubleshooting Higher Efficiency A/C Systems for HVAC Contractors</b>	<p>Introduction to R-410a Refrigerant. Issues with equipment selection with higher SEER. Troubleshooting variable speed motors. Understanding Temperature-Pressure relationships with R-410a. Troubleshooting refrigeration systems with TXV's.</p>	<b>4</b>	<b>\$50</b>	GSCC
<b>Introduction to e-Commerce for HVAC Contractors</b>	<p>This course is designed to inform HVAC contractors of the benefits of conducting research and business via the Internet to enhance his or her business practices. Hands-on computer experience.</p>	<b>4</b>	<b>\$50</b>	GSCC

<b>Mini Split Application, Installation, and Troubleshooting</b>	Mini Split Application, Installation, and Troubleshooting	<b>4</b>	<b>\$25</b>	Fujitsu General America
<b>Mini-Split Electrical Diagnostics &amp; Teardown Training</b>	This one day regional class provides in-depth troubleshooting for Halcyon Inverter systems. Morning session provides thorough instruction on basic electric and how to use a multi-meter, as well as a complete teardown & rebuild of an indoor wall mount unit. Afternoon session provides instruction on inverter technology and DC components. The afternoon lab includes board level diagnostics and hands on testing of outdoor unit circuit boards with multi-meters. Students need to bring a digital multi-meter with fresh batteries to the class. (Meters are not provided) Multi-meter should be capable of specific component testing; this includes the diode check function and a 4-10 mega-ohm testing capability.	<b>8</b>	<b>\$50</b>	Fujitsu General America
<b>Mini-Split Technology - Basic Course</b>	This four hour class will cover mini-splits with inverter and non-inverter compressors. It is taught from the service technician's point of view. We will explain why the mini-split is different from the standard air conditioning systems the techs are used to installing and servicing. The class addresses installation piping and wiring. Unit sizing and selection. Servicing with error codes and checking the unit out completely with a good meter. This includes checking thermistors and determining refrigerant pressures without the use of gauges. There is an introduction to inverters.	<b>4</b>	<b>\$55</b>	M Frederick Enterprises
<b>Mini-Split with Inverter Technology</b>	We will explain what an inverter circuit is and how it is used to control the compressor and fan speed. This will explain why the inverter is so efficient. Electronic expansion valves and Brushless D.C. motors will be explained. We will thoroughly cover communication and the related issues and solutions. Servicing all of this new technology by the use of a good meter will be shown. Proper installation techniques will be explained with emphasis on refrigerant line length and size, wiring, and indoor unit placement.	<b>4</b>	<b>\$55</b>	M Frederick Enterprises
<b>Preventing Common Minimum Standard Violations</b>	The Board of Heating, Air Conditioning, and Refrigeration Contractors will present a two hour seminar on how contractors can prevent common violations, and an overview of the new law, and the rules and regulations.	<b>2</b>	<b>No Charge</b>	State of Alabama Board of Heating, Air Conditioning, and Refrigeration Contractors
<b>Refrigerant 410A</b>	This program provides essential information regarding Refrigerant 410A as R-22 phases out. The program covers, safety aspects, oil differences, and pressure characteristics of R-410A.  This program teaches how to verify the correct system airflow with the use of a Magnehelic gauge. Correct system airflow must be verified before the R-410A system can be charged correctly.	<b>4</b>	<b>\$55</b>	Rheem
<b>Refrigeration Oils</b>	Refrigeration Oils: An in-depth look at Mineral, Alkylbenzene, and Polyolester Oils for the HVACR industry. This seminar will give the attendees a clear understanding of when and where to use each of these particular oils. Included in the training is an explanation of viscosity, thermal stability and miscibility and their importance when determining which type of oil to use for a particular system. (Approved for CEC Alabama and	<b>2</b>	<b>\$50</b>	Nu-Calgon

	Georgia 2 hours)			
<b>Rheem Inverter Systems</b>	The Inverter Systems course is designed to educate the technician on air conditioning and heat pump systems that utilize inverters and inverter driven compressors. Taking a systems approach the training covers electronic expansion valves, pressure transducers, inverter theory, and inverter operation. The training explains in great detail the sequence of operations, system installation, and diagnostics.	<b>4</b>	<b>\$55</b>	Rheem
<b>Shootin' Service - Trouble Shooting TEV's</b>	Complete review and analysis of the refrigeration cycle as it relates to the operation, installation, trouble-shooting, and servicing of TEV's. The contractor will learn to take measurements of system parameters (pressures and temps) to help diagnose TEV performance problems.	<b>2</b>	<b>\$50</b>	Sporlan
<b>Supermarket Refrigeration and Air Conditioning</b>	Course Description (Use Attachments if Necessary): This course is a highly technical course and covers every aspect of supermarket refrigeration including: Oil Management system, TEV's, Refrigeration Distribution, Suction Pressure Regulation, Heat Reclaim, Head Pressure Control, Defrost Operation, and more. The course uses refrigeration examples, but the concepts are applied to HVAC as well. Anticipated Outcome: This seminar will examine current and emerging design trends and also theory of operation and trouble-shooting. The contractor will receive a good working knowledge of all the components.	<b>8</b>	<b>\$85</b>	Sporlan
<b>Thermostatic Expansion Valve (TEV) Theory and Operation</b>	Comprehensive seminar on the TEV. This course explores the theory and application of TEV's and how they interact with the Air Conditioning or Refrigeration system. The contractor will learn what forces and system parameters affect the valves operation and how.	<b>4</b>	<b>\$50</b>	Sporlan
<b>Thermostatic Expansion Valves: How &amp; Why</b>	The program explores why the thermostatic expansion valve is used and how it operates. Valve construction, operation, installation and diagnostic procedures are covered. This program is a must in the world of 13 plus SEER equipment.  The job of the Thermostatic Expansion Valve is to control superheat in the evaporator. But, before condemning the TXV due to improper superheat range we must verify the heat load across the evaporator. To do so we must verify the correct airflow across the evaporator. This program will teach and demonstrate how to verify correct system airflow with the use of a Magnehelic gauge.	<b>4</b>	<b>\$55</b>	Rheem
<b>Total System Protection</b>	Total System Protection: A thorough look at why burnouts occur and how to prevent them. We will also present the proper way to clean out a system once a burnout occurs. The training will also cover what one should do when acid, carbon deposits, sludge, and copper plating exists in a compressor as well as acid testing and acid neutralization. (Approved for CEC Alabama and Georgia 2 hour)	<b>2</b>	<b>\$50</b>	Nu-Calgon
<b>Trouble Shooting Heat Pump Systems for HVAC</b>	Basic study of the Heat Pump Reverse Refrigeration Cycle. Included will be trouble shooting tips and performance rating formulas.	<b>4</b>	<b>\$50</b>	GSCC
<b>Troubleshooting Air Conditioning Systems</b>	Instruction on troubleshooting PSC compressors and motors, low voltage systems, integrated control boards, single and two-stage thermostats, and a/c systems equipped with thermostatic expansion valves.	<b>4</b>	<b>\$50</b>	GSCC



<b>Understanding Pressure - Enthalpy Relationship</b>	Course Description (Use Attachments if Necessary): A technical examination of the refrigeration cycle. Anticipated Outcome: The student will be led through each segment of the Pressure – Enthalpy chart and explore how it should work in an ideal situation as well as “real world” situations.	<b>2</b>	<b>\$50</b>	Sporlan
<b>Using the Sporlan Selection Software</b>	Course Description (Use Attachments if Necessary): An in depth look at how the Sporlan Selection program works and what it can do for the HVAC & R contractor. Anticipated Outcome: The contractor / engineer will learn how to use this software to properly size system components based on actual design conditions.	<b>2</b>	<b>\$50</b>	Sporlan
<b>Variable Speed Motor Technology Operations Set-Up and Diagnostics</b>	Focusing on the ECM motor this program discusses motor theory, set-up, and detailed diagnostic and replacement procedures. While the program covers fundamental motor information, much of the set-up and wiring diagrams are specific to the (-)BHK & (-)GPL product line.  This program teaches how to check the ESP (External Static Pressure) of a duct system with the use of a Magnehelic gauge. Students will learn that Variable Speed motors as well as X-13 and PSC motors must be applied to duct systems that do not exceed the ESP for which the motors are designed to operate. By determining the ESP of the duct system, it can be used to determine the airflow (CFM) of the system.	<b>4</b>	<b>\$55</b>	Rheem
<b>Violence in the Workplace</b>	Participants gain a heightened level of awareness of the potential for violence. They learn to recognize the symptoms and how to defuse.	<b>4</b>	<b>\$50</b>	GSCC
<b>Water Treatment</b>	Water Treatment: This seminar will give the attendees a thorough understanding of water treatment maintenance for cooling towers, evaporative condensers, boilers, and chillers. They will learn how to set up a drip feeder, work with an auto-feed system and gain knowledge on how to formulate the correct treatment to prevent and control scale, slime and corrosion. (Approved for CEC Alabama and Georgia 4 hours)	<b>4</b>	<b>\$100</b>	Nu-Calgon
<b>Winter Water Treatment</b>	Winter Water Treatment: Similar to the water treatment seminar, this program focuses on what a system needs prior to the winter season. Attendees will learn the differences between ethylene and propylene glycol and the proper treatments for hot/cold closed systems and low make-up steam systems. (Approved for CEC Alabama and Georgia 2 hour)	<b>2</b>	<b>\$50</b>	Nu-Calgon
<b>Workplace Safety for HVAC</b>	The course deals with personal safety and hazard communication, as well as vehicle safety, working at heights, material handling and lifting, compressed gases, etc.	<b>4</b>	<b>\$50</b>	GSCC