

## January-June 2016

### INSTALLATION & SERVICE COURSES

(Classes noting CEU hours are approved for State of Alabama Contractor Continuing Education and/or NATE CEUs)

**1201 – Foundations for Troubleshooting Gas Furnaces:** (27 State and NATE CEUs) 4 Days. Systematic implementation of dual fuel system analysis procedure. Gain working knowledge of dual fuel heat pump systems; proper venting, sizing of gas line, sequence of operation, and proper system performance.

January 11-14

February 22-25

May 9-12

**1501E - Basic Refrigeration & HVAC Operations:** (12 CEUs) 2 Days. Entry level; familiarization of refrigerant components, cycle of operation and problem recognition.

January 25-26

May 23-24

**1501 - Foundations for Troubleshooting HVAC Refrigerant Systems:** (27 State and NATE CEUs) 4 Days. Systematic implementation of the HVAC system analysis procedure and validation of actual sealed system performance of fully operational HVAC equipment.

February 1-4

March 7-10

April 25-28

May 23-26

**1502E - Basic HVAC Electrical Operations:** (12 CEUs) 2 Days. Entry level; familiarization of HVAC electrical terminology, component identification and basic equipment functions.

January 27-28

May 25-26

**1502 - Foundations for Troubleshooting HVAC Electrical Systems:** (27 State and NATE CEUs) 4 Days. Systematic implementation of HVAC system analysis procedure; and construction of an HVAC electrical system. Gain working knowledge of the basic concepts of electricity (i.e. volts, amps, capacitance, inductance, reactance, power factor, ohm's law, series/parallel circuits, etc.)

January 4-7

February 15-18

March 14-17

May 23-26

**1503 - Troubleshooting HVAC Refrigerant Systems:** (27 State and NATE CEUs) 4 Days. (Prerequisite 1501) Development of refrigerant system troubleshooting skills through proper and systematic routines in a laboratory setting closely simulating the technician's normal work environment.

January 4-7

February 15-18

March 28-31

**1504 - Troubleshooting HVAC Electrical Systems:** (27 State and NATE CEUs) 4 Days. (Prerequisite 1502) Development of electrical system troubleshooting skills through proper and systematic routines in a laboratory setting closely simulating the technician's normal work environment. Observe operation of live equipment; verify various failure operating modes; and identify exact cause of various system failures.

January 11-14

February 22-30

April 4-7

**1505 - Servicing HVAC Refrigerant Systems:** (27 State and NATE CEUs) 4 Days. Brazing, unit fabrication, evacuation and charging.

March 14-17

May 9-12

**1506 - Servicing HVAC Electrical Systems:** (27 State and NATE CEUs) 4 Days. (Prerequisites 1502 & 1504) Covers such areas as functions of solid state components used in HVAC equipment; use of meters and equipment to test and validate proper operation of components; programming of solid state thermostats to operate equipment at specific modes on specific time schedules and override capabilities for major brands of equipment. Feb. 1-4 Feb. 29-March 3 April 25-28

### International Ground Source Heat Pump Assn. (IGSHPA) Closed Loop Certification:

(19 State CEUs:) 4 Days. Provides the HVAC contractor with skills necessary to properly install and evaluate residential geothermal systems. Certification exam given at the conclusion of course. A must for quality geothermal installations. One year membership in IGSHPA included in price. February 15-18

**1905 - Refrigerant Recovery Certification:** January 11 April 11 May 31

**State Board Review** (20 NATE CEUs): January 11-13 February 29-March 2 June 6-8

**NATE Review and NATE Test** (14 State CEUs): February 1-3 April 25-27

**R410A Safety Certification** (8 State CEUs): January 12 April 12 June 1

**Duct & Envelope Tightness:** (12 State CEUs) This two day course is designed to introduce the skills necessary to become a Duct and Envelope Tightness (DET) Verifier, certified to perform the diagnostic testing required for new homes by the 2009 IRC/IECC with Alabama amendments. Online math course must be completed prior to attending. Details given at registration.

March 14-15

March 16-17

April 4-5  
June 20-21

April 6-7  
June 22-23

June 6-7

June 8-9

## APPLICATION COURSES

**Heat Pump Overview:** (12 State CEUs) 2 Days. Familiarization of heat pump operations, efficiency ratings, dual-fuel, air-to-air and geothermal systems.

February 22-23

**1802 - Residential Load Calculations:** (27 State and NATE CEUs) 4 Days. Develop industry accepted knowledge and skills of sizing residential heating and cooling equipment through hands-on training in a classroom and laboratory setting. (Based on the Manual J approach to load calculations.)

February 15-18

April 4-7

May 9-12

June 20-24

**1803 - Residential Duct Design:** (27 State and NATE CEUs) 4 Days. (Prerequisite 1802) Complete tasks such as determining the design CFM for sizing a duct system and proper air volume for each conditioned zone, based on design heat gain/loss. Determine the type, size, number and placement of supply diffusers and return air grilles; select proper equipment configuration for selected applications; draw layout of locations and size trunk, branch and return duct. (ACCA Manual D method.)

February 1-4

February 22-25

April 4-7

June 6-9

**1804 - Marketing Applications of Ohm's Law:** (12 State CEUs) 2 Days. Assists Marketing Personnel in developing a working knowledge of Ohm's Law and power formula manipulation.

February 8-9

April 11-12

**1807 - Duct Board Fabrication & Installation:** (27 State and NATE CEUs) 4 Days. Inexperienced personnel learn to understand and apply recommended methods and techniques for fabricating duct from fibrous board material. Experienced personnel are provided the opportunity to enhance their knowledge of fibrous duct fabrication and installation methods and practices.

March 28-31

May 23-26

**RightSuite:** (14 State and NATE CEUs) 2 Days. Designed to enhance the participant's skills to use computer software applications to calculate residential loads, design ducts, and to introduce the other program modules.

January 11-12

April 25-26

**To register:**  
**[www.alabamapower.com/hvac](http://www.alabamapower.com/hvac)**  
**or**  
**Call 1-800-634-0154**