

## **July-December 2015**

### **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. **September 28-October 1 November 2-5 November 30-December 3**

**1501E - Basic Refrigeration & HVAC Operations:** (12 CEUs) 2 Days. Entry level; familiarization of refrigerant components, cycle of operation and problem recognition.  
**December 14-15**

**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.

**September 8-11 October 26-29 November 16-19 December 14-17**

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

**December 16-17**

**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.)

**September 14-17 October 12-15 November 16-19 December 14-17**

**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.

**September 28-October 1 October 12-15 December 7-10**

**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. **October 5-8 November 30-December 3**

**1505 - Servicing HVAC Refrigerant Systems:** (27 State and NATE CEUs) 4 Days. Brazing, unit fabrication, evacuation and charging. **October 5-8 December 7-10**

**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. **September 21-24 October 19-22**

**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.

**November 16-19**

**1905 - Refrigerant Recovery Certification:** **September 22**

**State Board Review** (20 NATE CEUs): **August 17-19 October 19-21 November 30-December 2**

**NATE Review and NATE Test** (14 State CEUs): **October 26-28 November 23-25**

**R410A Safety Certification** (8 State CEUs): **September 23**

**RMV- Residential Mechanical Ventilation Installation:** (14 State and NATE CEUs) 2 Days. Provides invaluable information for those involved with designing and installing residential mechanical ventilation systems including HRV's and ERV's. Taught by HRAI certified instructor, this certification class covers the fundamentals of air quality assessment, system requirements and the design and installation of mechanical ventilation systems.

November 16-17

**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.

October 19-20 October 21-22 November 2-3 November 4-5 December 14-15

## **APPLICATION COURSES**

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

September 14-15

**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.)

September 14-17 October 19-22 November 16-19

**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.)

October 26-29 December 14-17

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

November 9-10

**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.

October 12-15

**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.

August 31-September 1

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or call  
1-800-634-0154 to register**