

Alabama Power Company HVAC Training Center

Approved Curriculum

To Sit For State of Alabama HVAC Contractor's Exam

1501 - Foundations for Troubleshooting HVAC Refrigerant Systems:

27 hours

4 Days. Systematic implementation of the HVAC system analysis procedure and validation of actual sealed system performance of fully operational HVAC equipment.

1502 - Foundations for Troubleshooting HVAC Electrical Systems:

27 hours

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.)

1503 - Troubleshooting HVAC Refrigerant Systems:

27 hours

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.

1504 - Troubleshooting HVAC Electrical Systems:

27 hours

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.

1505 - Servicing HVAC Refrigerant Systems:

27 hours

4 Days. Brazing, unit fabrication, evacuation and charging.

1506 - Servicing HVAC Electrical Systems:

27 hours

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.

1201 - Foundations for Troubleshooting Gas Furnaces:

27 Hours

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.

1802 - Residential Load Calculations:

27 Hours

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.)

1803 - Residential Duct Design:

27 Hours

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.)

1807 - Duct Board Fabrication & Installation:

27 Hours

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.

Total Hours Required - 270