

HVAC for Home Performance

Tight ducts and tight buildings, good for clients and for you.

What could go wrong?

Course Information:

As the energy-efficiency bar rises, the margin for error shrinks.

The more efficient the home and HVAC equipment, the more important and challenging it is to get the HVAC right – to prevent costly call-backs, achieve the rated efficiency, and meet customers' high expectations. *Home performance* (comfort and indoor air quality with low utility bills) depends upon the relationships between HVAC and the building envelope. The interactions are even greater in our hot, humid climate.

In this 3-day workshop, you'll gain expertise in building science concepts that are key to prevent, diagnose and solve problems. You'll learn best practice methods and options; how energy-efficient homes impact Manual J, D and S or H HVAC design; and crucial air sealing techniques to achieve the 2009 IRC energy code air tightness and duct testing provisions.

This course also includes **Duct and Envelope Tightness (DET) verifier training and certification** (optional). Upon successful completion of this course and DET exams, you will be Southface Energy Institute certified as a DET verifier, qualified to perform the testing required for new homes by the 2009 residential energy codes. LaHouse Resource Center is an authorized provider of the Southface training, exam and certification.

NOTE! DET certification provides duct leakage code compliance options that are not possible for those who are certified ONLY in duct leakage testing. This can increase your compliance rate, saving time and money!

Through this interactive class, you will learn, observe, discuss and practice:

- Controlling building air flow, thermal (heat) flow, and moisture flow
- Measurement and Implications of differential pressures
- Troubleshooting air flow and zone pressure diagnostics
- Indoor air quality factors and options to provide outdoor air
- Make-up air for kitchen hood and fireplaces
- Insulation installation grading; labeled vs. actual whole-wall R-value
- How high efficiency equipment impacts high humidity levels
- Equipment sizing and design in tight building envelopes
- Effective HVAC ductwork, equipment and building air sealing methods
- 2009 IRC Chapter 11 building envelope and duct leakage requirements
- Code compliance options
- Protocols for blower door and duct leakage testing and reporting
- Exhaust fan flow measurement
- Testing equipment set-up, orientation, and problem solving
- How to calculate CFM50, ACH50, percent duct leakage, NACH, EqLA, building pressures
- How to evaluate and report testing results for the 2009 IRC energy code
- Tips for successfully completing the DET Verifier certification exams



The HVAC for Home Performance training program and class fee include:

- 2.5 days of interactive instruction and practice (plus half-day DET exams)
- HVAC and DET handbooks
- Online tutorials
- Written DET Verifier exam
- In-field DET Verifier exam
- DET Verifier Certificate (when passing score on both exams)
- Certificate of Attendance (for CEU hours)

Who should attend:

Residential HVAC contractors and service technicians, building inspectors, energy service providers and other professionals seeking certification by a nationally recognized testing organization to perform mandated testing by the 2009 residential energy code.

Credentials:

Certification: Duct and Envelope Tightness (DET) Verifier Certificate (NOTE: You must receive a passing score on both exams for Southface designation as a DET Verifier.)

Education units: Eligible for 20 CEUs for La. residential contractor CEUs; 8.5 LU for AIA; 14 BPI units. Certificate of attendance will be issued and may qualify for other professional units.

Instructor: Paul LaGrange, LSU AgCenter Building Science Educator

Date, Time and Location:

2016 classes: Jan. 26-28, April 19-21, Sept. 6-8.

The class is held from 8:00-4:00 each day in the Teaching Center of LaHouse Resource Center, located on 2858 Gourrier Ave., Baton Rouge, La. 70820 (directly across from LSU Alex Box Baseball Stadium). Please arrive between 7:45 and 8:00 a.m. for registration and photos taken for inclusion on the DET Verifier certificates.

Prerequisites and Class Supplies:

Online Pre-class Tutorials: *Math Basics for DET Verifiers* and *Basics of Building Science* online 1-hour modules (access provided upon registration)

Supplies: Bring a calculator for the written and field exams.

Cost:

*\$495 registration fee for 3-day class (includes written and field exams on day 2)

***20% discount** on full class fee for LHBA and La. Realtor members, LaHouse Gold + Key Contributors, government and non-profit organization employees, faculty and students.

***DET, BPI or RESNET** certified may take one-day HVAC only portion of class (day 3) for **\$95**.

*Select Registration Type for appropriate registration fee.

Note: LSU AgCenter - LaHouse courses qualify for **Louisiana Incumbent Worker Training Program** (IWTP) tuition reimbursement for eligible employers. See www.laworks.net for IWTP information.

Class size is limited. Payment must be received to reserve your seat

For more information and a link to register, visit

www.lsuagcenter.com/LaHouse