

**CENTER FOR PROFESSIONAL DEVELOPMENT****PERFORMING COMPREHENSIVE BUILDING ASSESSMENTS**

30 Hours/90 Days/Instructor-Facilitated  
Course Code: **CPD103** || Course Cost: **\$695**

**OVERVIEW**

This program features a task-oriented format that applies practical, real-world situations in each module, expanding on the theories and concepts taught in the Principles of Green Buildings program. Performing Comprehensive Building Assessments is intended for students who are engaged in conducting building assessments, energy audits, performance testing, energy ratings, green ratings, rating verifications, quality assurance, quality installations, building inspections, home inspections, home tune-ups, or any other related building improvement, evaluation, or repair services that make changes to the building as a system.

You'll start out learning the systems, tools, and techniques commonly encountered during visual observations, including evaluation of envelope components, mechanical systems, and base loads such as appliances and lighting. You'll then move on to diagnostic testing, with an emphasis on safety. You'll learn how to set up and use the blower door for building pressurization and depressurization testing and how to use the data you obtain. The program will cover combustion safety testing, basic duct diagnostic testing, and CO testing for appliances. Finally, you'll learn how to use assessment information and diagnostic results to develop a work scope which you can then present to a customer.

This program will help you prepare for BPI Building Analyst Certification and NATE HVAC Efficiency Analyst Certification (Senior Level). This program will refer to the BPI Building Analyst as well as to various industry codes and standards. Instruction aligns with ANSI/ACCA Quality Installation and Maintenance Standards. Both BPI and NATE recognition of continuing education hours (30 CEHs) applicable to recertification is pending. You must obtain a 75% or higher to obtain CEH recognition.

**OBJECTIVES**

Upon completion of this program, you'll be able to:

- Assess, gather, and organize data for building analysis
- Employ a standardized approach to assessments and diagnostic evaluations of a building
- Describe the operation / installation/testing using a blower door
- Understand combustion testing, instruments used, and analysis made from the data
- Determine duct system status using a duct blaster
- Develop and present a work scope with prioritized recommendations for customers

**PREREQUISITES**

This intermediate-level program is intended for those who are seriously pursuing a career in building, remodeling, or HVAC, or a trade industry related to home performance. We recommend

that you take the Principles of Green Building program or have a solid understanding of building science concepts and house-as-a-system prior to enrollment.

The PCBA Program is also for you if you're seeking NATE, NARI, BPI, RESNET, and other industry credentials related to green-building performance.

### **OUTLINE**

This program contains six learning modules covering:

- Observation Techniques and Data Collection
- Exterior and Interior Assessment and Building System Analysis
- Blower Door and Zonal Pressure Diagnostics, Ventilation Rates
- Combustion Safety Testing and Analysis
- Duct Diagnostics
- Work Scope Development and Customer Relations

### **COMPUTER REQUIREMENTS**

This program is compatible with Windows XP/Vista/7 and IE 7 and later browsers. Adobe Flash Player is required, as is an Internet connection (high-speed recommended).

### **INSTRUCTOR BIO**

Keith Conrod brings over 30 years of experience in the construction and installation of HVACR systems in a variety of settings to the HVACReduction.net faculty.

Upon graduating from high school, he attended the University of Calgary for two years (studying Mechanical Engineering), later transferring to the Southern Alberta Institute of Technology, where he received certification in plumbing and first class gas fitting. Keith has also received certification in Cross Connection Control and Backflow Prevention, Mechanical Estimating, and Hydronic Heating Design (Northern Alberta Institute of Technology). He is also a member of the AWWA , WCWWA, and Local 496 ( United Association of Plumbers and Pipefitters).

After becoming a certified journeyman, Keith installed the plumbing, heating, medical gas, and HVACR systems in such buildings as hospitals, schools, high-rise office and apartment buildings, food production facilities, sewage treatment plants, and many homes. He has a broad range of acquired knowledge and experience in the light industrial, commercial, and housing disciplines. Presently employed as a Site Superintendent/Project Manager for a major mechanical contractor (in the Calgary, Alberta, Canada area), he oversees the onsite design and installation of all mechanical systems and provides a jobsite link to the engineers and architects. He is also responsible for the training of apprentices and giving guidance and direction to the certified tradesmen in his charge.

Keith is well versed in all aspects of the HVACR industry and provides us with a valuable link as well as hands-on insight to the HVACR practices and procedures in the field.