

Course Syllabus

BPI Building Analyst Field Training



INFINITE EXPERTISE.

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PART 1: COURSE INFORMATION

General Course Information

Instructor(s): EnergyLogic Staff or Qualified Training Partner
Location: [Logical Living Center](#) in Berthoud, CO (different sites as scheduled)
Duration: 4 Days
Class Hours: 8:00am – 5:30pm daily
Training Logistics Questions: meagan.foster@nrglogic.com, matt.thornberry@nrglogic.com
Material Questions: scott@nrglogic.com

Prerequisites

In order to join EnergyLogic (or a proxy trainer) for the field portion of training, you must have completed:

- 📍 EnergyLogic's Online BPI BA Training, OR Completion of an Equivalent Training*

*These prerequisites may require additional training from EnergyLogic at your expense. EnergyLogic will evaluate your prerequisites on a case-by-case basis.

Course Description

The field portion of BPI Building Analyst Certification is 4 days of field training designed to introduce the BPI auditor to the inspection processes and diagnostic testing.

During the field training, we will complete 2 practice audits. This is an instructor-facilitated course, and students will have one-on-one instruction on the testing equipment. Much of the field work will be done in a group setting where peer-to-peer interaction is used to complete the audits.

During the field portion of training, students will complete their field test requirement to attain the BPI certification.

Textbooks and Course Materials

Recommended Materials:

- 📍 Computer (*required – if you will not be bringing a laptop, please [contact us](#) to rent one*)
- 📍 Clipboard
- 📍 Calculator
- 📍 Pencil
- 📍 Tape Measure AND Architect Scale or Ruler
- 📍 Hard Hat, Respirator, Safety Vest, Goggles
- 📍 Sturdy Shoes
- 📍 Shoe Cover(s)

Recommended Texts:

- 📍 Energy Auditor Field Guide: John Krigger & Chris Dorsi. *Find it [here](#)*
- 📍 Computer Builder's Guide to...(various climates): Joseph Lstiburek. *Find it [here](#)*
- 📍 Insulate and Weatherize: Bruce Harley. *Find it [here](#)*

Course Requirements

Students are required to attend every class for the entire scheduled time. To successfully complete this course, students will complete 2 practice audits and pass competency requirements on the testing equipment and processes. In addition, the field exam will be completed on the fourth day of training. It is important that you are a full participant. Please put aside work for these days.

Course Structure

This course will be delivered using a combination of classroom presentations and field work. In addition, students will have access to the EnergyLogic Academy, which will have online lessons, course materials, and resources.

Day 1: Overview and Labs

- 🕒 Class Overview
- 🕒 Testing Presentations
- 🕒 Blower Door Lab
- 🕒 Pressure Diagnostic Lab
- 🕒 Combustion Safety Testing Lab

The first day of training will be dedicated to labs. We will do a brief classroom presentation on the principles of diagnostic testing, followed by a blower door lab where the instructor will demonstrate proper use of the blower door system. Next will be a pressure diagnostic lab, followed by a combustion safety testing lab. In each of the lab sessions, students will get an opportunity to have hands-on time with the equipment.

Day 2: Field Practice Audit

- 🕒 Group Combustion Safety Testing
- 🕒 Blower Door Practice
- 🕒 Pressure Diagnostics Practice
- 🕒 Full Audit and Work Scope Development
- 🕒 One-on-One Blower Door Instruction

The second day will be our first practice audit, which will be completed on an existing home. Students will gather data in groups during the morning session. While students are gathering data, the instructor will have one-on-one coaching sessions with each of the participants in the course. During this one-on-one time, students will set up and run the blower door and perform pressure diagnostics. The student will then interpret the data provided by the diagnostic test with the instructor.

Day 3: Field Practice Audit

- 🕒 Full Audit & Work Scope Development
- 🕒 Combustion Safety Testing Practice
- 🕒 One-on-One Combustion Safety Instruction
- 🕒 National Written Examination

The third day will be the second practice audit, completed on a new home. During this audit, students will have one-on-one time with the instructor on the combustion safety testing process. We will also complete the written exam on this day.

Day 4: Examinations

- 🕒 Individual Field Certification Exams

On the fourth day of training, we will complete the BPI-required field testing. Each student will have 2 hours to complete an audit on a home in the presence of a proctor.







PART 2: COURSE OBJECTIVES

The field portion of the BPI Building Analyst Training is designed to give participants in-depth training on the processes of completing a home energy audit, as well as the diagnostic equipment required to complete the audit.

Objectives

1. To develop a full understanding of measuring and inspecting a home for home energy audits
2. To apply the BPI BA standards during field inspection
3. To develop competency using the manometer
4. To develop competency using the blower door system
5. To develop competency testing gas lines using a gas sniffer
6. To develop competency using the monoxer
7. To develop competency completing combustion safety tests according to BPI standards
8. To develop a work scope based on the practice audits

You will meet the objectives listed above by completing the following activities in this course:

-  Review the blower door, duct blaster, and pressure diagnostic modules prior to attending class
-  Participate fully in the labs
-  Engage in one-on-one coaching with the instructors
-  Assume a leadership role when necessary; help other students when you have knowledge they don't
-  Approach the course with a desire to learn
-  Complete the practice audits and deliver the scope of work documents to the instructor for review

PART 3: COMPLETION OF COURSE

Successful completion of the field portion of the BPI Building Analyst Training includes passing both the online and field exams. Information on both of these exams is below:

Online Exam Information

1. Please bring the following:

- a. Identification: we will need to check your identification, so be sure to bring along your ID (driver's license, etc.)
- b. Laptop – if you do not have a personal laptop to bring to the exam, please contact [Meagan Foster](#) prior to the exam date to rent one from EnergyLogic
- c. Pen or pencil
- d. Calculator
- e. Blank scratch paper (you will not be allowed to access any notes for this exam)
 - i. You will be able to access the standards for this exam, but please do not bring any notes

2. What to Expect with the Online Exam:

- a. Exams will be videotaped for BPI to meet their Quality Assurance requirements as an ANSI Standard.
- b. You will be allowed 2 hours to complete the 100 question multiple choice exam. If you are already a certified rater, and have provided proof of your certification, you may take a 50 Question Exam with which you are allowed 1.5 hours to complete.
- c. If the time limit expires, the exam will be stopped and evaluated accordingly.
- d. There is absolutely no outside information allowed during the exam. You are not allowed to consult with other candidates, reference outside notes or books, or use the Internet to research exam questions.
- e. Once you have submitted your answers, you will be transferred to an automated grade report. If you do not receive your scores right away, you will be able to locate them by logging into your Candidate Portal 24 hours after the completion of the exam. Do not call BPI for exam scores.

- f. There will be a way to mark questions for further review at the end of the exam in case you are not sure about your answer. You can ignore this checkbox if you're confident in your answer and you do not want to mark it for later review.

Field Exam Information

1. Please Bring the Following:

- a. Identification: We will need to check your identification, so be sure to bring along your ID (driver's license, etc.)
- b. Application for BPI Certification: You should have completed and uploaded this document in the final module of the online training. If you did not upload this document in the online training, please bring a printed copy of the Application for BPI Certification with you (which can be accessed via this [link](#))
- c. Personal Protection Equipment including Dust Mask/Respirator
- d. Good Boots/Shoes
- e. Flashlight/Headlamp
- f. [Field Guide](#)
- g. [CAZ Quick Reference](#)
- h. EnergyLogic's Field Data Collection Form (may already be a resource on the LMS??)
- i. Clipboard
- j. Pen/Pencil
- k. You will be able to access notes, inspection forms, etc. so please feel free to bring those resources

2. Testing Equipment:

- a. For the Field Exam, EnergyLogic will provide the testing equipment, however if you prefer you may use your own equipment. This must include at a minimum:
 - i. CO Analyzer
 - ii. Gas Leakage Detector
 - iii. Draft Probe
 - iv. Manometer
 - v. Blower Door (Frame, Shroud, Fan, Controls)
 - vi. Pressure Hoses
 - vii. Smoke Puffer and/or Mirror

3. What to Expect With the Field Exam:

- a. Exams will be videotaped for BPI to meet their Quality Assurance requirements as an ANSI Standard.
- b. All cell phones or other electronic devices that may interfere with the exam must be turned off.
- c. You will be allowed up to 2 hours to take the exam.
- d. If the time limit expires, the exam will be stopped and evaluated accordingly.
- e. Please be aware that this is a BPI Exam and that you will be tested on your knowledge, as well as performance of skills and abilities, as outlined in the BPI Standards. You will not be given credit for knowledge or performance of skills and abilities outside of the BPI Standards.
- f. You will walk around with the proctor while you are performing an analysis of the home.
- g. Please think aloud so that the proctor may have a better understanding of what you are seeing and doing.
- h. The proctor may only answer procedural questions and cannot answer any technical questions.
- i. If at any time a potentially serious health and/or safety violation occurs (for the candidate, proctor, structure, or occupants), the exam will be stopped immediately and considered unsuccessful.
- j. Exam results are determined by BPI after the exam has been submitted for processing. When the exam has been processed, which typically takes 2 to 4 weeks, you will receive an email notification with instructions on how to access your scores.

PART 4: GRADING POLICY

EnergyLogic (or a field training partner) will proctor the student exams upon completion of both the classroom and field trainings. BPI requires two exams. The first is a timed 50 question written exam completed online. The second is a 2 hour field practical exam in which students have to complete an audit based on the BPI standards. Both exams require a BPI proctor to be in attendance.

The results of the written examination are immediate upon completion of the exam. However, the field examination is graded by BPI. Results of this exam can take up to six weeks for BPI to process. EnergyLogic commits to submitting paperwork to BPI immediately upon completion of the exams to help expedite the grading process.

PART 5: CONCLUSION

We hope that the information covered here will help ensure your success in this course and beyond! Now that you have read through the syllabus, you probably understand that student learning in the EnergyLogic Academy and the BPI Building Analyst Training is anything but passive – your active participation and consistent effort will make this a successful learning experience for you as well as your fellow students (and future colleagues!).