

# Green Jobs Academy, BPI Energy Auditor Class

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## Day 1

- **Program Guidelines:**
  - Green Jobs Academy Orientation and Introductions
  - BPI Energy Auditor Certification Handbook and application process
- **Agenda**
  - Safety and Equipment
  - Exterior and Interior Inspections
  - Appliances, Ventilation
  - Combustion Safety and Appliance Inspection and Testing
  - Blower Door and Diagnostic tests
  - Total Duct Leakage Tests
- **Review References for the written test:**
  - BPI Energy Auditor Standard (ANSI/BPI-1200-S-2024)**
  - Technical Standards for Building Analyst – 2024**
  - Formula reference sheet**
  - NREL SWS 2024**
- **Lab: Combustion Safety testing procedure**

## Day 2

- **Building Science and Weatherization**
- **Auditor's Toolbox**
- **Building Construction & Attic Ventilation**
- **Shell Retrofit Strategies: Airsealing, Insulation**
- **Basic Cost-Benefit Analysis and Savings to Investment Ratios**
- **Lab: Blower Door testing, room-room, Zonal Pressure Diagnostics, pressure pan diagnostics, total duct leakage setup and interpretation.**
- **Zonal Pressure Diagnostics: remember, if  $>25$  pa = better air barrier.**

## Day 3

- **Fuel Distribution and Storage**
- **HVAC & DHW Combustion Appliances**
- **Indoor Air Quality (IAQ)**
  - Whole House Ventilation Strategies
- **Math Basics for Buildings**
- **Baseload Measures and Math**
- **Calculating Envelope Heat Energy Loss**
- **Lab: Field test walk through.**

## Day 4

- **Search resources including BPI 1200, NREL SWS 2024, Tech Stds**
- **Review EPA, OSHA, SDS**
- **Math review – wall volume to # bags cellulose, heat loss,  $U = 1/R$  (cant add U's)**
- **Lab: Review Field Test**
  - Combustion Safety and Appliance Inspection and Testing
  - Blower Door and Diagnostic Testing
  - Total Duct Leakage Test
  - Building inspection
  - HVAC safety inspection

## Day 5

- **Review for Written Test**
  - Review Resources and Material
  - Sample Questions

**Resources:** Residential Energy, Krigger, 6<sup>th</sup> Edition  
ANSI/BPI 1200-S-2024 Standards – practice searches  
NREL 2024 Single Family – practice searches  
Technical Standards for the Building Analyst  
Math: BPI Formula Reference sheet  
PPE, EPA, OSHA, SDS, Gas Code, Oil Code  
Combustion Safety Test Procedures  
Study Guides, Equipment Manuals, etc.