

Weatherization Supervisor Syllabus

Time: 40 hours

Maximum Class Size: 12

Prerequisites: Green Construction Awareness, Weatherization Technician & Installer

Course Description: This 40-hour course builds on the skills the participant gained in the LIUNA Weatherization Technician Installer course. Core competencies of a Weatherization Supervisor are presented including all parts of weatherization inspection, the procedure for conducting a combustion safety test and the procedures for conducting the diagnostic blower door, duct blaster and infrared camera test.

Goals/Objectives/Student Learning Outcomes:

- Given specific weatherization topics, participants will be able to list 3-5 of the facts or statistics presented for the topic without reference to any written material:
 - Weatherization benefits
 - Scope of weatherization inspection
 - Supervisor role
- List major Federal insulation and ventilation regulations
- Select proper PPE tools and describe safety measures for that tool.
- Describe and/or demonstrate effective communication techniques for interaction between a supervisor and a homeowner
- Describe how to use first aid kit contents to treat common job site injuries
- Identify the procedures and materials for:
 - Sealing the building envelope
 - Insulating and sealing ductwork
 - Installing insulation
- Identify deficiencies in the following areas and describe weatherization solutions
 - Thermal boundary
 - Pressure boundary
 - Ventilation
 - Interior zones
 - Energy systems
 - Heating/cooling systems
 - Domestic hot water systems
- Describe how to handle hazardous materials or situations
- Given combustion and combustion safety term and without reference materials, participants will be able to
 - Accurately describe the term without using the term itself

Weatherization Supervisor Syllabus

- Identify the term when given a descriptive clue
- Given a specific piece of combustion safety equipment, participants will be able to name the equipment, describe its purpose and describe how to operate it.
- Given a workplace scenario, participants can list all of the steps involved for measuring the base pressure without reference to any written materials.
- Without reference to any written materials, participants will be able to accurately answer questions on:
 - The procedure for measuring spillage
 - The steps if spillage fails under worst case
 - How to test for spillage
 - How to test for CO
 - How to test for draft
 - What are acceptable CO limits
 - What are appropriate failure actions
- Identify all combustion appliances
- Identify acceptable CO levels
- Identify acceptable spillage levels
- Identify acceptable draft levels
- Perform the steps for conducting combustion safety testing
- Identify action levels
- List facts for diagnostic topics without reference to any written materials
- Create and accurately answer questions pertaining to the following, given a game-show exercise on blower door testing and without reference to any written materials:
 - Equipment set-up and take-down
 - Measurement and recording procedure
 - Data analysis and troubleshooting
- Create, given a series of topics on duct blaster testing and without reference to any written materials, a comprehensive list of facts pertaining to:
 - Equipment
 - Steps to setting up and taking down
 - Measurement and recording procedure
 - Data Analysis
 - Troubleshooting actions
- Demonstrate, given an infrared camera, that you know how to use the device
- Conduct all three-weatherization diagnostic test, given a lab mock-up or in-the-home opportunity
 - Blower door
 - Duct blaster
 - Infrared camera

Weatherization Supervisor Syllabus

Standards

- The California Green Building Standard Codes: California Code of Regulations Sections 505 (building envelope), 506 (air sealing), 508 (water heater installation), 608 (water efficiency and conservation)
- Career Technical Education Framework for California: Building Trades and Construction Industry Sector 3.1 (Career Planning and Management), 9.3 (Leadership and Teamwork), 11.0 (Demonstration and Application) and BTC D1.0-3.0 & 5.0 (Pathway Standards).

Classroom Rules and Procedures

- All classes begin at 6:30 am and end at 3:00 pm
- Upon entering classroom, all participants must sign in and be seated by 6:30 am
- Class will consist of a combination of lecture, video, demonstration, coached group exercises, individual exercises and assessment.
- Students are required to report to class ready to work and maintain the provided PPE

Textbooks/Readings/Materials:

- *Weatherization Supervisor*-LIUNA Training (Instructor & Participant Guides)
- Weatherization Supervisor PowerPoint
- Hand-out Packet (from LIUNA Weatherization Supervisor Materials)
- *Weatherization Supervisor* 50-question Exit Exam

Tools/Equipment/Other Materials:

- CO meter
- First Aid Kit
- Mini Hygro-thermometer Moisture meter
- Gas leak detector
- CO Analyzer
- Digital Manometer
- Draft Gauge
- Hand-held anemometer
- Digital Combustion Analyzer
- Portable Digital Multimeter
- Drill and 5/16 drill bit
- Smoke puffer
- Mirror
- Drill tape

Weatherization Supervisor Syllabus

- Blower Door
- Index cards
- Infrared camera
- Duct blaster

Personal Protective Equipment:

- 12 pairs of gloves
- 12 pairs of Safety Glasses
- 20 pairs of Ear plugs
- 12 hard hats
- 12 Respirators
- 12 Tyvek suits
- 12 pairs of knee pads

Course Requirements:

To receive credit for the course, participants must:

- Be present for full forty hours
- Participate in all classroom exercises
- Pass a Hands-On Evaluation
- Pass a 50-question written exam

Course Policies:

- Participants must be on-time and ready to work.
- Participants must return from breaks on-time.
- Participants must participate in each exercise and assignment
- Participants who are on “light duty” are not allowed to take this course due to the physically demanding requirements.

Assessment and Grading:

Participants will be assessed on the following:

- All written exams must be passed with a score of 80% or above.
- All hands-on exercises are graded on performance and participation. They are pass/fail and must be passed with a score of 80% or above.

Weatherization Supervisor Syllabus

Safety:

Failure to maintain and use PPE may result in dismissal from the course.