

Weatherization Energy Auditor Syllabus

Time: 40 hours

Maximum Class Size: 12

Prerequisites: Green Construction Awareness, Weatherization Technician/Installer

Course Description: This 40-hour course builds on information presented in the Weatherization Technician/Installer course as well as knowledge the participant may have acquired from installing weatherization measures and supervising the work of others. Specifically, participants will learn how to conduct an energy audit and how to formulate recommendations for those measures that can help save clients' money and make their homes more energy efficient.

Goals/Objectives/Student Learning Outcomes

- Describe all the components of an energy audit
- Describe what information to obtain from and communicate to a client prior to an audit
- Describe what areas of a structure to inspect, tests to conduct, and the information each test provides
- Analyze utility bills to identify opportunities for energy saving
- Analyze the results of diagnostic test and other inspection techniques to determine appropriate weatherization measures
- Describe the most commonly used weatherization measures and the applicable standards and codes
- Select measures and materials to weatherize a structure based on codes, environmental impact and industry best practices
- Estimate projected energy savings for the client
- Produce an audit report that describes the findings and recommends the appropriate weatherization measures

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).

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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 Energy Auditor*-LIUNA Training (Instructor & Participant Guides)
- *Weatherization Energy Auditor* PowerPoint
- Hand-out Packet (from LIUNA Weatherization Energy Auditor Materials)
- 50-question Exit Exam
- Flip chart
- Markers
- Index cards

Tools/Equipment/Other Materials:

- Infrared camera
- Bacharach Video
- Calculators-1 per participant

Personal Protective Equipment:

- 12 pairs of gloves
- 12 pairs of safety glasses
- 20 pairs of earplugs
- 12 hard hats

Course Requirements:

To receive credit for the course, participants must:

- Be present for full forty hours
- Participate in all classroom exercises
- Pass a written exam

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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.

Safety:

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