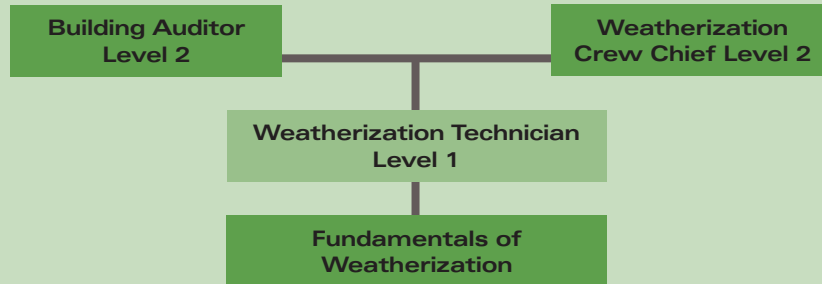


As energy efficiency is becoming a priority for homeowners across America, many are turning to the weatherization industry to assist in their efforts. NCCER's *Weatherization* program offers training that exceeds the existing standards for weatherization technicians, crew chiefs, and building auditors. This program combines existing NCCER curricula with new building science modules that address the specific needs of this industry. Dual credentials are available within this program. *Note: Instructors wishing to teach NCCER's Weatherization program must meet specific qualifications. For more information, contact NCCER Customer Service at 1-888-622-3720.*



Introduction to Weatherization



17.5 Hours
Published: 2010
Module ID 59101-10

PAPERBACK

Trainee Guide: \$24.99

ISBN

978-0-13-216699-7



Introduces the purpose and benefits of the weatherization program. Explains how weatherization goals are met by reducing heating and cooling losses and how infiltration points are located. Approved

for 17.5 continuing education hours under GBCI's credential maintenance program.

- Downloadable instructor resources that include module tests, PowerPoints®, and performance profile sheets are available at www.nccer.org/irc.

FUNDAMENTALS OF WEATHERIZATION



Curriculum Notes

- 95 Hours
- Published: 2010
- *Introduction to Weatherization*, combined with NCCER's *Core*, makes up *Fundamentals of Weatherization* and is intended to introduce trainees to the concepts and skills they will need to successfully complete *Weatherization Technician Level One*.

PAPERBACK

Trainee Guide: \$69.99
Individual Modules: \$24.99


ISBN

978-0-13-237661-7

see module list

Continued on following page



L1 WEATHERIZATION TECHNICIAN	
	LEVEL 1
Curriculum Notes	
<ul style="list-style-type: none"> • 150 Hours • Includes 95 hours of <i>Fundamentals of Weatherization</i> which is a prerequisite for Level One completion and must be purchased separately. <ul style="list-style-type: none"> • Hardcover: \$69.99, ISBN 978-0-13-237661-7 • Published: 2010 • Downloadable instructor resources that include module tests, PowerPoints®, and performance profile sheets are available at www.nccer.org/irc. 	
PAPERBACK	ISBN
Trainee Guide: \$69.99	978-0-13-256957-6

MODULES

The modules listed below are included in the Trainee Guide. The following ISBNs are for ordering individual modules only.

Wood and Masonry Construction Methods

(12.5 Hours)

ISBN 978-0-13-257038-1

(Module ID **33102-10**; from *Electronic Systems Technician Level One*) Reviews the materials and techniques used in constructing and finishing residential and commercial buildings, including wood frame, brick and block, and post and beam. Covers common drills, bits, and techniques used to drill through wood and masonry. Also describes types of fasteners used with these materials.

Thermal & Moisture Protection (7.5 Hours)

ISBN 978-0-13-257040-4

(Module ID **27203-07**; from *Carpentry Level Two, Fourth Edition*) Covers the selection and installation of various types of insulating materials in walls, floors, and attics. Also covers the uses and installation practices for vapor barriers and waterproofing materials.

Sealing the Building Envelope (25 Hours)

ISBN 978-0-13-256068-9

(Module ID 59102-10) Describes how to correct heat losses and gains by applying insulating materials to uninsulated areas of the building envelope. Describes how to reduce air infiltration by applying caulks and other materials. Also explains how to patch drywall and install weatherstripping.

Insulating Pipes, Ducts, and Water Heaters

(10 Hours)

ISBN 978-0-13-256070-2

(Module ID 59103-10) Describes how to insulate water pipes and water heaters, and explains how to make simple duct system repairs, seal air leaks in a duct system, and insulate ducts to reduce heat loss.

L2 WEATHERIZATION CREW CHIEF	
	LEVEL 2
Curriculum Notes	
<ul style="list-style-type: none"> • 162.5 Hours • Published: 2011 • Downloadable instructor resources that include module tests, PowerPoints®, and performance profile sheets are available at www.nccer.org/irc. 	
PAPERBACK	ISBN
Trainee Guide: \$99.99	978-0-13-257674-1

Introduction to Supervisory Skills (15 Hours)

ISBN 978-0-13-266286-4

(Module ID 03410-09; from *HVAC Level Four, Third Edition*) Describes the skills that must be learned for the craftsperson who plans to move into leadership roles. Introduces human resource criteria and concepts for the first time in the series.

Introduction to Cooling (30 Hours)

ISBN 978-0-13-266287-1

(Module ID 03107-07; from *HVAC Level One, Third Edition*) Explains the fundamental operating concepts of the refrigeration cycle and identifies both primary and secondary components found in typical HVAC/R systems. Also introduces common refrigerants. Describes the principles of heat transfer and the essential pressure-temperature relationships of refrigerants. Introduces basic control concepts for simple systems.

Introduction to Heating (15 Hours)

ISBN 978-0-13-266288-8

(Module ID 03108-07; from *HVAC Level One, Third Edition*) Covers the fundamentals of heating systems and the combustion process. Provides the different types and designs of gas furnaces and their components, as well as basic procedures for their installation and service.

Chimneys, Vents, and Flues (5 Hours)

ISBN 978-0-13-266292-5

(Module ID 03202-07; from *HVAC Level Two, Third Edition*) Covers the principles of venting fossil fuel furnaces and methods for selecting and installing vent systems for gas-fired heating equipment.

Air Distribution Systems (10 Hours)

ISBN 978-0-13-266291-8

(Module ID 03109-07; from *HVAC Level One, Third Edition*) Describes the factors related to air movement and its measurement in common air distribution systems. Presents the required mechanical equipment and materials used to create air distribution systems. Introduces basic system design principles for both hot and cold climates.

Air Quality Equipment (5 Hours)

ISBN 978-0-13-266314-4

(Module ID 03204-07; from *HVAC Level Two, Third Edition*) Covers principles, processes, and devices used to control humidity and air cleanliness, as well as devices used to conserve energy in HVAC systems.

Indoor Air Quality (15 Hours)

ISBN 978-0-13-266293-2

(Module ID 03403-09; from *HVAC Level Four, Third Edition*) Defines the issues associated with indoor air quality and its effect on the health and comfort of building occupants. Provides guidelines for performing an IAQ survey and covers the equipment and methods used to monitor and control indoor air quality.

Diagnostics and Management Practices

(30 Hours)

ISBN 978-0-13-266294-9

(Module ID 59201-10) Explains how to interpret energy audit reports and how to prioritize and schedule air sealing. Describes how to perform the following tests: blower door, pressure pan, burner efficiency, carbon monoxide, draft, and spillage. Also covers lead-safe work practices and how to perform quality inspections on completed work.

MODULES

The modules listed below are included in the Trainee Guide. The following ISBNs are for ordering individual modules only.

Concrete and Steel Construction Methods (12.5 Hours)

ISBN 978-0-13-266284-0

(Module ID 33103-10; from *Electronic Systems Technician Level One*) Describes the materials and techniques used in constructing and finishing residential and commercial buildings, including poured and prefabricated concrete and structural steel. Covers common drills, bits, and techniques used to drill through concrete and steel. Also describes types of fasteners used with these materials.

Commercial Drawings (25 Hours)

ISBN 978-0-13-266285-7

(Module ID 27201-07; from *Carpentry Level Two, Fourth Edition*) Describes how to read and interpret a set of commercial drawings and specifications.

Continued on following page

L2 BUILDING AUDITOR**LEVEL 2****Curriculum Notes**

- 172.5 Hours
- Published: 2011
- Downloadable instructor resources that include module tests, PowerPoints®, and performance profile sheets are available at www.nccer.org/irc.

PAPERBACK

Trainee Guide: \$99.99

ISBN**978-0-13-257675-8****MODULES**

The modules listed below are included in the Trainee Guide. The following ISBNs are for ordering individual modules only.

Trade Mathematics (10 Hours)**ISBN 978-0-13-266307-6**

(Module ID 03102-07; from *HVAC Level One, Third Edition*) Explains how to solve HVAC/R trade-related problems involving the measurement of lines, area, volume, weights, angles, pressure, vacuum, and temperature. Also includes a review of scientific notation, powers, roots, and basic algebra and geometry.

Introduction to Cooling (30 Hours)**ISBN 978-0-13-266287-1**

(Module ID 03107-07; from *HVAC Level One, Third Edition*) Explains the fundamental operating concepts of the refrigeration cycle and identifies both primary and secondary components found in typical HVAC/R systems. Also introduces common refrigerants. Describes the principles of heat transfer and the essential pressure-temperature relationships of refrigerants. Introduces basic control concepts for simple systems.

Introduction to Heating (15 Hours)**ISBN 978-0-13-266288-8**

(Module ID 03108-07; from *HVAC Level One, Third Edition*) Covers the fundamentals of heating systems and the combustion process. Provides the different types and designs of gas furnaces and their components, as well as basic procedures for their installation and service.

Chimneys, Vents, and Flues (5 Hours)**ISBN 978-0-13-266292-5**

(Module ID 03202-07; from *HVAC Level Two, Third Edition*) Covers the principles of venting fossil fuel furnaces and methods for selecting and installing vent systems for gas-fired heating equipment.

Introduction to Hydronic Systems (10 Hours)**ISBN 978-0-13-266312-0**

(Module ID 03203-07; from *HVAC Level Two, Third Edition*) Introduces hot water heating systems, focusing on safe operation of the low-pressure boilers and piping systems in residential applications.

Heating and Cooling System Design (25 Hours)**ISBN 978-0-13-266311-3**

(Module ID 03407-09; from *HVAC Level Four, Third Edition*) Identifies factors that affect heating and cooling loads. Explains the process by which heating and cooling loads are calculated, and how load calculations are used in the selection of heating and cooling equipment. Covers basic types of duct systems and their selection, sizing, and installation requirements.

Energy Conservation Equipment (10 Hours)**ISBN 978-0-13-266290-1**

(Module ID 03404-09; from *HVAC Level Four, Third Edition*) Covers heat recovery/reclaim devices, as well as other energy recovery equipment used to reduce energy consumption in HVAC systems.

Indoor Air Quality (15 Hours)**ISBN 978-0-13-266293-2**

(Module ID 03403-09; from *HVAC Level Four, Third Edition*) Defines the issues associated with indoor air quality and its effect on the health and comfort of building occupants. Provides guidelines for performing an IAQ survey and covers the equipment and methods used to monitor and control indoor air quality.

Alternative Heating and Cooling Systems*(10 Hours)***ISBN 978-0-13-266316-8**

(Module ID 03409-09; from *HVAC Level Four, Third Edition*) Describes alternative devices used to reduce energy consumption, including wood, coal, and pellet-fired systems, waste-oil heaters, geothermal heat pumps, solar heating, in-floor radiant heating, and direct-fired makeup units. Also introduces application-specific computer room environmental and air turnover systems.

Performing a Building Audit (42.5 hours)**ISBN 978-0-13-266309-0**

(Module ID 59202-10) Explains how to interview homeowners and educate them about saving energy in their homes. Explains how to inspect and evaluate the building envelope and HVAC systems. Describes how to perform the following tests: blower door, pressure pan, burner efficiency, carbon monoxide, draft, and spillage. Also covers lead-safe work practices, baseload energy use, and the purpose of the forms and reports a building auditor is responsible for completing.