

This document is meant to be a **CONDENSED SUMMARY** of module assessments and performance testing required for a student to achieve the **NCCER HVAC Level I Certification**. The actual NCCER Performance Profile packet should be studied, referenced, and used for instructor planning and execution of Level I certification for students. NCCER Performance Profiles Links:

[Core Curriculum](#)

[HVAC Level I](#)

In order for students to receive the NCCER Level 1 credential, the following criteria must be met

1. Facility must be an NCCER Accredited Training & Education Facility (ATEF)
2. Instructors must have a current NCCER Craft Instructor Certification in the applicable trade area
3. NCCER Registration and Release Form must be on file for each student receiving credential
4. All Core and Level I written/electronic assessments and Performance Profile assessments must be passed and NCCER testing procedures followed.

NCCER Core Curriculum: Module and Performance Profile Summary (5th Edition)

Module	Performance Profile
Basic Safety (00101-15)	<ol style="list-style-type: none"> 1. Extension ladder 2. PPE inspection 3. PPE fitting/removal 4. Power cord/GFCI inspection
Construction Math (00102-15)	No Performance Testing Required for this Module
Introduction to Hand Tools (00103-15)	<ol style="list-style-type: none"> 1. Visual inspection of 5 hand tools 2. Safe and proper use of 3 hand tools 3. Make a straight, square cut in lumber
Introduction to Power Tools (00104-15)	<ol style="list-style-type: none"> 1. Demonstrate the safe use of 3 power tools
Introduction to Construction Drawings (00105-15)	Using floor plan supplied with module: <ol style="list-style-type: none"> 1. Locate walls 2. Identify width 3. Determine distances between walls 4. Determine elevation of slab
Introduction to Basic Rigging (00106-15) <i>*Optional for Level I Certification</i>	<ol style="list-style-type: none"> 1. Demonstrate ASME Emergency Stop hand signal
Basic Communication Skills (00107-15)	<ol style="list-style-type: none"> 1. Perform a task after oral instructions 2. Work related form 3. Read and interpret instructions for donning PPE, oral instruction
Basic Employability Skills (00108-15)	No Performance Testing Required for this Module
Introduction to Materials Handling (00109-15)	<ol style="list-style-type: none"> 1. Demonstrate safe manual lifting 2. Demonstrate how to tie 2 common knots

NCCER HVAC I Curriculum: Module and Performance Profile Summary (4th Edition)

Module

Performance Profile

Introduction to HVAC (03101-13)	Performance testing is not required for this module
Trade Math (03102-13)	Performance testing is not required for this module
Basic Electricity (03106-13)	<ol style="list-style-type: none"> 1. Measure voltage in an energized circuit 2. Measure current in an energized circuit 3. Measure resistance 4. Use a multi-meter to check circuit continuity 5. Assemble and test series and parallel circuits
Introduction to Heating (03108-13)	<ol style="list-style-type: none"> 1. Induced draft and condensing furnaces 2. Common maintenance on a gas furnace
Introduction to Cooling (03107-13)	<ol style="list-style-type: none"> 1. Measure temperatures in an operating cooling system 2. Calibrate refrigerant gauges and thermometers 3. Connect a refrigerant gauge manifold, calculate subcooling and superheat on an operating system 4. Identify refrigerants using cylinder color codes 5. Identify compressors, condensers, evaporators, metering devices, controls, and accessories
Air Distribution Systems (03109-13)	<ol style="list-style-type: none"> 1. Use a tachometer to measure blower rpm 2. Equivalent length and air volume/duct size charts 3. Use a manometer to measure static pressure 4. Use a velometer to measure airflow velocity 5. Use a velometer to calculate system cfm
Basic Copper and Plastic Piping Practices (03103-13)	<ol style="list-style-type: none"> 1. Cut and bend copper tubing 2. Mechanically join copper tubing <ul style="list-style-type: none"> • Flare tubing connection • Compression fitting connection • Swaging tool 3. Cut and join lengths of plastic pipe
Soldering and Brazing (03104-13)	<ol style="list-style-type: none"> 1. Oxyacetylene equipment 2. Acetylene single tank 3. Soldering copper in various planes, using various fittings 4. Prep and brazing of copper tubing using various fittings
Basic Carbon Steel Piping Practices (03105-13)	<ol style="list-style-type: none"> 1. Cut, ream, and thread steel pipe 2. Join lengths of threaded pipe using selected fittings