HEATING, VENTILATION, AIR CONDITIONING & REFRIGERATION TECHNOLOGY

www.southeast.edu/HVACTech

There is a high demand for well-trained HVAC technicians nationwide, and it can also be very satisfying to help people with heating and cooling issues. Professionals in the HVAC/R industry design, build, install, service, maintain, troubleshoot, and repair heating and cooling systems year-round.

Program Overview:
Students may focus on the installation and maintenance of residential, commercial or industrial heating, ventilation, air conditioning, and hydronic heating systems or refrigeration equipment.

Prior to graduation, students will be required to take the Industry Competency Exam. The ICE measures industry-agreed standards of basic competencies for entry-level technicians.

Please contact the program chair for more information.

Types of jobs available:
• Maintenance Specialist
• Building Engineer
• Service Technician
• Plant Manager
• Heating System Specialist
• Business Owner
• Steam Fitter
• Service Manager
• Sales Representative

Graduate Earnings
Recent graduates report an average starting wage of $17 per hour.

For more information contact:
Jeff Boaz, Program Chair
402-761-8262, 800-933-7223 ext. 8262
jboaz@southeast.edu

or the College Admissions Office
Milford 402-761-8243, 800-933-7223 ext. 8243

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AD728 - HVAC (06/18)
General Education Requirements:
Contact your program advisor to select general education courses from each category, which will meet your program’s graduation requirements. See the General Education pages online for a complete list. (One class from each area below).
- Oral Communications 4.5
- Written Communications 4.5
- Analytical, Quantitative, and Scientific Reasoning MATH1040 Business Math or higher (Recommended) 4.5
- Critical Thinking & Problem Solving
  - PHYS1150 Descriptive Physics (Recommended) 6.0
  - Plus one class from the two areas listed below
- Career and Life Skills or Global Awareness and Citizenship 4.5
- 24.0 hours

HVAC/R Required Courses:

<table>
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<tr>
<th>Course #</th>
<th>Course title</th>
<th>Credit hrs</th>
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<tbody>
<tr>
<td>HVAC1109</td>
<td>Electrical Theory/Lab</td>
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<tr>
<td>HVAC1131</td>
<td>Refrigeration Systems I</td>
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<td>HVAC1132</td>
<td>Piping Practices</td>
<td>4.0</td>
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<td>HVAC1226</td>
<td>Refrigeration Lab I</td>
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<td>Hydronic Heating</td>
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<td>HVAC1330</td>
<td>Residential Controls I</td>
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<td>HVAC1331</td>
<td>Manual J/Manual D</td>
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<td>HVAC1336</td>
<td>Sheet Metal Fabrication</td>
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<td>HVAC1338</td>
<td>Heat Pump Systems</td>
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<td>Refrigeration Lab II</td>
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<td>HVAC1461</td>
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<td>HVAC/R Lab</td>
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<td>HVAC2610</td>
<td>HVAC Troubleshooting</td>
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<td>HVAC2649</td>
<td>Commercial HVAC Systems</td>
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<td>HVAC2900</td>
<td>Internship or Coop</td>
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<td>HVAC2901</td>
<td>Cooperative Experience</td>
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<tr>
<td>WELD1190</td>
<td>O/A and GMAW Welding</td>
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76.0 hours

Expand your education and become more marketable with a certificate in the new Plumbing Technology program!

Estimated Expenses
Nebraska Resident tuition/fee rate is $69.50 per credit hour. Out-of-state tuition/fee rate is $83.50 per credit hour. Graduation fee is $25. Housing is available at Beatrice and Milford campuses only. Tuition, books and fees are dependent upon classes taken each quarter. Students should plan a budget that includes room, meals, clothing, laundry, medical care, recreation and entertainment, transportation, insurance, etc.

<table>
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<tr>
<th>QUARTER</th>
<th>Tuition And Fees</th>
<th>Books</th>
<th>Tools/Kit</th>
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</table>

Total $11,743

Required Tools and Supplies

**A 10% discount is given to students purchasing a complete tool kit. Kits can be preordered from the Campus Store.

1ST QUARTER SUPPLIES

- *Hard Hat
- (2) 10" Adjustable End Wrenches
- 6" Regular Slip Joint Pliers
- Claw Hammer (16 oz.)
- 12" Multi-Track Pliers

Flaring Tools:
1. Tube Cutter
2. Imp Tube Cutter
3. Flaring Tool

- 25' Steel Measuring Tape
- Volt Ohmmeter (Analog or Digital) (Field Piece SC77) (w/2 temperature leads)
- Deburring Tool
- Triangle File
- 11-Piece Wrench Set (1/4"-3/4")

1ST QUARTER TOOL KIT**

- *Scientific Calculator (Sharp EL-506)
- *Arch Scale
- *1020 Colored Pencils/Pens
- *Clipboard
- *Electrical Tape
- *Black Sharpie Permanent Marker
- *Flashlight
- *Utility Knife

2ND QUARTER TOOL KIT**

- 410A Standard Refrigeration Charging Manifold Set
- Magnetic Tip Nut Drivers (1/4" x 5/16" - 9 3/4"
- 7 Piece Nut Driver Set (hollow shaft)
- Valve Core Tool
- (1) 3 pk. Environmental Charging Hose (w/shutoff ball valve)
- Hose Gaskets
- 3/8" Socket Set (16 piece set minimum)
- Inspection Mirror
- Non-Contact AC Voltage Pen
- Bar Tool
- Adjustable Scribe

3RD QUARTER TOOL KIT**

- Sheet Metal Offset Aviation Snips (red handles)
- Sheet Metal Offset Aviation Snips (green handles)
- Sheet Metal Scratch Awl Regular Handle
- 18" Sheet Metal Dividers
- Sheet Metal Straight Snips
- Bar Tool
- Adjustable Scribe

3RD QUARTER DRAFTING KIT**

- Mars Compass with Extension Bar
- *Pencil Eraser (white eraser)
- Triangle 45 degree
- Post T-Square
- *Black Sharpie Permanent Marker
- *Mesh Bag

4TH QUARTER TOOL KIT**

- Torpedo Level
- 12V – 3/8" Drill Cordless Drill
- 1/4" Hex X 1-7/8" Setter
- Knee Pads (optional)

4TH QUARTER WELDING SUPPLIES**

- *Arc Welding Helmet (#10 Lens – 2 Clear Lenses)
- *Oxy-Fuel Face Shield (#5 or #6 Lenses)
- *Welding Gloves
- *Oxy-Fuel Face Shield (#5 or #6 Lenses)
- *Wire Cutters or Side Cutters
- *Chipping Hammer & Wire Brush

* May be purchased at the Milford Campus Store or Parts Store.