Heating Ventilation and Air Conditioning (HVAC) Program Alignment – CIP: 47.0201

Effective: Fall 2024
Issued 1/26/23

Certificate A
16-29 Credit Hours

Certificate B
30-44 Credit Hours
OR
Certificate C
45-59 Credit Hours

A.A.S.
60-68 Credit Hours

HVAC Level 1
• All Common and Support Courses
• Certifications:
  - OSHA 10 or 30
  - EPA 608

HVAC Level 2
• Certificate A Requirements
• Entry Level Credential in one of the following (see page 2):
  - ICE (Industry Competency Exam)
  - NATE (North American Technician Excellence)
  - HVAC Excellence
  - NCCER (National Center for Construction Education and Research)

HVAC Degree
• Certificate B or C Requirements
• Minimum of 15 Credit Hours of General Education

Required Courses within Program

<table>
<thead>
<tr>
<th>Common Courses</th>
<th>8 credits:</th>
</tr>
</thead>
<tbody>
<tr>
<td>HVAC Fundamentals</td>
<td>4 credits</td>
</tr>
<tr>
<td>Heating System Fundamentals</td>
<td>3 credits</td>
</tr>
<tr>
<td>EPA 608</td>
<td>1 credit</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Support Courses*</th>
<th>5-8 credits:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electrical Fundamentals</td>
<td>3-4 credits</td>
</tr>
<tr>
<td>Safety Orientation/OSHA 10 or 30</td>
<td>1-3 credits</td>
</tr>
<tr>
<td>Workplace Skills</td>
<td>1 credit</td>
</tr>
</tbody>
</table>

Course list sequence has no implication on course scheduling by colleges.
Institutions may add additional competencies based on local demand.

*Institutions may utilize existing like course titles for Support Courses that adhere to the agreed upon course lengths.

Notes
Specifics pertaining to HVAC programs:
1. Title must include HVAC and may also include:
   • Refrigeration and/or
   • Climate and Energy Control
Certificate B or C

Institutions may choose one of the following four credentialing options:

ICE – Completion of one of the following Credential options:
- Residential: CORE + At least one speciality (Air Conditioning, Air Distribution, Heat Pumps, Gas Furnaces, or Oil Furnaces).
- Light Commercial Air Conditioning and Heating: including Start-up Heating, Start-up Air Conditioning, Service Heating, Refrigerant Recovery, and Installation.

OR

NATE – Credential Core Areas + Minimum of one specialty area in Installation or Service which may include:
- Air Conditioning
- Air Distribution
- Air-to-Air Heat Pumps
- Gas Heating (Air)
- Oil Heating (Air)
- Hydronics Gas
- Hydronics Oil
- Light Commercial Refrigeration
- Commercial Refrigeration

OR

HVAC Excellence – Credential Core Areas (Electrical & Refrigeration Theory) + Minimum of one of the following areas:
- Air Conditioning, Gas Heat, & Electrical
- Light Commercial Air Conditioning, Gas Heat, & Electrical
- Light Commercial Refrigeration & Electrical

OR

NCCER – Credential Core Areas + Completion of Level 1 & 2 Competencies

A.A.S.

Institutions may add an HVAC A.A.S. degree (maximum of 68 credits) that requires completion of the requirements for a Certificate B or C AND requires a minimum of 15 Credit Hours of General Education.