



# MECHANICAL/HVAC FUNDAMENTALS

Youth Apprenticeship

## MECHANICAL/HVAC FUNDAMENTALS

MECHANICAL/Heating, Ventilation, and Air Conditioning (HVAC) Fundamentals youth apprentices gain skills related to the use of construction safety, drawings and blueprints, materials, tools, and general worksite procedures. Apprentices must adhere to industry safety and security standards.

**Length of Apprenticeship:** One year

## COMPETENCIES

**Year 1:** Mechanical/HVAC Fundamentals youth apprentices must complete a **total of fifteen** Mechanical/HVAC Fundamentals Competencies and a minimum of **1** Mechanical/HVAC Specialty Competency. Employers can substitute **1** competency with another occupationally appropriate skill. That skill should be added to the competency list for assessment. Year 1 competencies are completed with employer guidance.

**Youth Apprentices must also complete the following during Year 1:**

- ☐ First Aid Certification
- ☐ OSHA 10 or 30

**Year 2:** Mechanical/HVAC Fundamentals youth apprentices must complete the **fifteen** Mechanical/HVAC Fundamentals Competencies with minimal supervision and a minimum of **1** different Mechanical/HVAC Specialty Competencies than the first year. A specialty competency may be repeated only if the type of construction (residential or commercial) differs from the first year. Employers can substitute **1** competency with another occupationally appropriate skill. That skill should be added to the competency list for assessment. Year 2 competencies are completed with minimal employer guidance.

**Select construction type and circle the applicable year:**

- ☐ Residential completed during Year: One and/or Two
- ☐ Commercial completed during Year: One and/or Two

Note that where necessary, skills can be simulated.

Mechanical/HVAC Fundamentals Competencies	Mechanical/HVAC Specialty Competencies
<ol style="list-style-type: none"><li>1. Follow safety procedures</li><li>2. Read construction drawings and plans</li><li>3. Interpret symbols and procedures</li><li>4. Contribute to a job task plan</li><li>5. Work as a member of a construction team</li><li>6. Prepare work area for construction</li><li>7. Select construction materials</li><li>8. Use hand and light duty tools</li></ol>	<ol style="list-style-type: none"><li>16. Assist with basic equipment problem identification and diagnosis for heating and cooling systems</li><li>17. Assist with basic equipment repair for air conditioning systems</li><li>18. Assist with set up and fabrication of metals</li><li>19. Assist with the installation of fabricated parts</li></ol>

9. Use power tools and equipment 10. Perform materials handling 11. Install materials per job specifications 12. Perform construction measurements 13. Maintain a clean and safe work area 14. Clean up job site 15. Practice quality craftsmanship	
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## REGISTERED APPRENTICESHIP BRIDGING OPPORTUNITIES

Some of the related instruction courses can bridge into the following registered apprenticeship:

- Environmental Systems Technician and MECHANICAL/HVAC Installer-Technician
- Sheet Metal Worker-Commercial
- Sheet Metal Worker-Residential

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## POST-SECONDARY PATHWAY OPPORTUNITIES

There are several post-secondary pathway opportunities in this area. Following is partial list.

- HVAC-R Technician



# MECHANICAL/HVAC FUNDAMENTALS

Youth Apprenticeship  
ON-THE-JOB LEARNING PERFORMANCE STANDARDS GUIDE

## YOUTH APPRENTICE INFORMATION

Youth Apprentice Name	
YA Coordinator	YA Consortium
School District	High School Graduation Date

## REQUIREMENTS

### One Year

Youth Apprentices completing a one-year apprenticeship must complete ALL the items listed below.  
Check completed areas.

- ☐ Competency checklist
- ☐ Employability Skills checklist (in this job book) or the DPI Employability Skills Certificate
- ☐ Related instruction equal to 1 high school credit or at least 3 college credits
- ☐ Minimum of 450 work hours

### Two Year

Youth Apprentices completing a two-year apprenticeship must complete ALL the items listed below.  
Check completed areas.

- ☐ Competency checklist
- ☐ Employability Skills checklist (in this job book) or the DPI Employability Skills Certificate each year
- ☐ Related instruction equal to 2 high school credit or at least 6 college credits
- ☐ Minimum of 900 work hours

## HOURS

Record the hours the youth apprentice worked.

Total Hours Employed	Company Name	Telephone Number

## CAREER PREPARATION

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Youth apprentices must complete **one** of the following during Youth Apprenticeship participation:

- ☐ 1. Student is participating in a local or regional career pathway\*.

Identify the pathway below:

For more information contact the [Wisconsin Department of Public Instruction](#). Additional help may be found on the WI DPI [Wisconsin Pathways – Regional Career Pathways](#) and [DPI Career Clusters and Pathways](#) web pages.

**\*Local and Regional career pathways** as defined by the WI DPI means that a student is participating in or has completed at least one CTE class in a cluster pathway sequence and has completed at least one of the other career pathway components: instructional related course, work-based learning, dual college credit, and/or career and technical student organization.

- ☐ 2. Student has completed one of the following certificates during their YA program or possess current certification earned previously.

A copy of the certificate must be uploaded with the completed checklist. Select the certificate from the list below.

- ☐ Leadership Certificate (DPI)
- ☐ OSHA 10 or 30
- ☐ Commercial Driver's License (CDL) – Must be 18 years old
- ☐ Skills USA
- ☐ Other certificates identified by the Career and Technical Education (CTE) Approved Certifications List related to this occupational field (or related to this occupation) [dwd.wisconsin.gov/det/cte incentive/](http://dwd.wisconsin.gov/det/cte incentive/) (YA certificates excluded)

Title of Certification:

- ☐ 3. Student is participating in a [Dual Enrollment Course](#) connected to any postsecondary education provider including UW System, Wisconsin Association of Independent Colleges and Universities (WAICU), and any of the 16 Wisconsin Technical Colleges (WTCS).

College Name:

College Course Title:

Course Number:

For more information on Dual Enrollment opportunities, please click on one of the below resources:

- [WTCS](#)
- [WAICU](#)
- UW System – connect with the college of choice.

## SIGNATURES

The On-the-Job Learning Performance Standards Guide includes a list of competencies youth apprentices learn through mentoring and training at the worksite.

Instructions for the Worksite Employers/Mentors and School-Based or YA coordinators.

This document should be reviewed with the employer / mentor, school-based or YA coordinator on a regular basis with the youth apprentice to record progress and plan future steps to ensure completion of the required competencies. Mentors, school-based / YA coordinator, and the apprentice sign below.

Employer/Mentor Signature	Employer/Mentor Signature
Employer/Mentor	Employer/Mentor
Business/Company	Business/Company
Date Signed	Date Signed
School-Based and/or YA Coordinator Signature	School-Based and/or YA Coordinator Signature
School-Based and/or YA Coordinator	School-Based and/or YA Coordinator
School District or Organization	School District or Organization
Date Signed	Date Signed
Youth Apprentice Signature	Youth Apprentice Signature
Youth Apprentice	Youth Apprentice
School District / High School	School District / High School
Date Signed	Date Signed

## EMPLOYABILITY SKILLS

Youth apprentices must demonstrate key employability skills.

The DWD YA program employability skills requirement may be attained and demonstrated through two processes. (See options listed below.) Employability skills must be completed for every year a student is in the program. The DPI Employability Skills Certificate may be counted as meeting one of those two years, provided the certificate is earned in the same year the student is enrolled in youth apprenticeship or they can complete the YA Employability Skills in the OJL. The Employability Skills Certificate must be obtained through the DPI.

1. If a student has successfully completed a Wisconsin Department of Public Instruction (DPI) State-Certified Cooperative Education, [Co-Op Employability Skill certification](#) then they have met the YA Employability Skills requirement for that year. A copy of the student's DPI Co-Op Employability Skill Certificate must be maintained on file with their YA regional consortium.  
  
☐ Earned Wisconsin Employability Skills Certificate (checked if applicable) or,
2. Completed and rated "Employability Skills" through this YA OJL guide as described below.

<b>3</b>	<b><i>Exceeds Expectations:</i></b> Exceeds entry-level criteria; requires minimal supervision; consistently displays this behavior
<b>2</b>	<b><i>Meets Expectations:</i></b> Meets entry-level criteria; requires some supervision; often displays this behavior
<b>1</b>	<b><i>Working to Meet Expectations:</i></b> Needs improvement; requires much assistance and supervision; rarely displays this behavior

The following skills are required of all youth apprentices.

Employability Skills		Rating		
Competency and Rating Criteria		Minimum Rating of 2 for EACH Check Rating		
		1	2	3
1. Develops positive work relationships with others. <i>Examples of qualities and habits that the employee might exhibit include . . .</i> <ul style="list-style-type: none"> <li>• Interacts with others with respect and in a non-judgmental manner</li> <li>• Responds to others in an appropriate and non-offensive manner</li> <li>• Helps co-workers and peers accomplish tasks or goals</li> <li>• Applies problem-solving strategies to improve relations with others</li> <li>• When managing others, shows traits such as compassion, listening, coaching, team development, and appreciation</li> </ul>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Employability Skills		Rating		
Competency and Rating Criteria		Minimum Rating of 2 for EACH Check Rating		
		1	2	3
2. Communicates effectively with others <i>Examples of qualities and habits that the employee might exhibit include . . .</i> <ul style="list-style-type: none"> <li>Adjust the communication approach for the target audience, purpose, and situation to maximize impact</li> <li>Organizes messages/information in a logical and helpful manner</li> <li>Speaks clearly and writes legibly</li> <li>Models behaviors to show active listening</li> <li>Applies what was read to actual practice</li> <li>Asks appropriate questions for clarity</li> </ul>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Collaborates with others <i>Examples of qualities and habits that the employee might exhibit include . . .</i> <ul style="list-style-type: none"> <li>Works effectively in teams with people of diverse backgrounds regardless of sex, race, ethnicity, nationality, sexuality, religion, political views, and abilities</li> <li>Shares responsibility for collaborative work and decision making</li> <li>Uses the problem-solving process to work through differences of opinion in a constructive manner to achieve a reasonable compromise</li> <li>Avoids contributing to an unproductive group conflict</li> <li>Shares information and carries out responsibilities in a timely manner</li> </ul>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Maintains composure under pressure <i>Examples of qualities and habits that the employee might exhibit include . . .</i> <ul style="list-style-type: none"> <li>Uses critical thinking to determine the best options or outcomes when faced with a challenging situation</li> <li>Carries out assigned duties while under pressure</li> <li>Acts in a respectful, professional, and non-offensive manner while under pressure</li> <li>Applies stress management techniques to cope under pressure</li> </ul>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Demonstrates integrity <i>Examples of qualities and habits that the employee might exhibit include . . .</i> <ul style="list-style-type: none"> <li>Carries out responsibilities in an ethical, legal and confidential manner</li> <li>Responds to situations in a timely manner</li> <li>Takes personal responsibility to correct problems</li> <li>Models behaviors that demonstrate self-discipline, reliability, and dependability</li> </ul>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



Employability Skills		Rating		
Competency and Rating Criteria		Minimum Rating of 2 for EACH Check Rating		
		1	2	3
<b>6. Performs quality work</b> <i>Examples of qualities and habits that the employee might exhibit include . . .</i> <ul style="list-style-type: none"> <li>• Carries out written and verbal directions accurately</li> <li>• Completes work efficiently and effectively</li> <li>• Performs calculations accurately</li> <li>• Conserves resources, supplies, and materials to minimize costs and environmental impact</li> <li>• Uses equipment, technology, and work strategies to improve workflow</li> <li>• Applies problem-solving strategies to improve productivity</li> <li>• Adheres to worksite regulations and practices</li> <li>• Maintains an organized work area</li> </ul>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>7. Provides quality goods or services (internal and external)</b> <i>Examples of qualities and habits that the employee might exhibit include . . .</i> <ul style="list-style-type: none"> <li>• Shows support for the organizational goals and principles by own personal actions</li> <li>• Displays a respectful and professional image to customers</li> <li>• Displays an enthusiastic attitude and desire to take care of customer needs</li> <li>• Seeks out ways to increase customer satisfaction</li> <li>• Produces goods to workplace specifications</li> </ul>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>8. Shows initiative and self-direction</b> <i>Examples of qualities and habits that the employee might exhibit include . . .</i> <ul style="list-style-type: none"> <li>• Prioritizes and carries out responsibilities without being told</li> <li>• Responds with enthusiasm and flexibility to handle tasks that need immediate attention</li> <li>• Reflects on any unsatisfactory outcome as an opportunity to learn</li> <li>• Improves personal performance by doing something different or differently</li> <li>• Analyzes how own actions impact the overall organization</li> <li>• Supports own action with sound reasoning and principles</li> <li>• Balances personal activities to minimize interference with work responsibilities</li> </ul>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>9. Adapts to change</b> <i>Examples of qualities and habits that the employee might exhibit include . . .</i> <ul style="list-style-type: none"> <li>• Shows flexibility and willingness to learn new skills for various job roles</li> <li>• Uses problem-solving and critical-thinking skills to cope with changing circumstances</li> <li>• Modifies own work behavior based on feedback, unsatisfactory outcomes, efficiency, and effectiveness</li> <li>• Displays a "can do" attitude</li> </ul>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Employability Skills		Rating		
Competency and Rating Criteria		Minimum Rating of 2 for EACH Check Rating		
		1	2	3
10. Demonstrates safety and security regulations and practices <i>Examples of qualities and habits that the employee might exhibit include . . .</i>	<ul style="list-style-type: none"> <li>• Follows personal safety requirements</li> <li>• Maintains a safe work environment</li> <li>• Demonstrates professional role in an emergency</li> <li>• Follows security procedures</li> <li>• Maintains confidentiality</li> </ul>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11. Applies job-related technology, information, and media <i>Examples of qualities and habits that the employee might exhibit include . . .</i>	<ul style="list-style-type: none"> <li>• Applies technology effectively in the workplace</li> <li>• Assesses and evaluates information on the job</li> <li>• Assesses training manuals, website, and other media related to the job</li> </ul>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12. Fulfills training or certification requirements for employment <i>Examples of qualities and habits that the employee might exhibit include . . .</i>	<ul style="list-style-type: none"> <li>• Participation in required career-related training and/or educational programs</li> <li>• Passing certification tests to qualify for licensure and/or certification</li> <li>• Participation in company training or orientation</li> </ul>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13. Sets personal goals for improvement <i>Examples of qualities and habits that the employee might exhibit include . . .</i>	<ul style="list-style-type: none"> <li>• Setting goals that are specific and measurable</li> <li>• Setting work-related goals that align with the organization's mission</li> <li>• Identifying strategies to reach goals</li> <li>• Reflecting on goal progress to regularly evaluate and modify goals</li> </ul>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

## COMPETENCIES

**Year 1:** Mechanical/HVAC Fundamentals youth apprentices must complete a **total of fifteen** Mechanical/HVAC Fundamentals Competencies and a minimum of **1** Mechanical/HVAC Specialty Competency. Employers can substitute **1** competency with another occupationally appropriate skill. That skill should be added to the competency list for assessment. Year 1 competencies are completed with employer guidance.

**Youth Apprentices must also complete the following during Year 1:**

- ☐ First Aid Certification
- ☐ OSHA 10 or 30

**Year 2:** Mechanical/HVAC Fundamentals youth apprentices must complete the **fifteen** Mechanical/HVAC Fundamentals Competencies with minimal supervision and a minimum of **1** different Mechanical/HVAC Specialty Competencies than the first year. A specialty competency may be repeated only if the type of construction (residential or commercial) differs from the first year. Employers can substitute **1** competency with another occupationally appropriate skill. That skill should be added to the competency list for assessment. Year 2 competencies are completed with minimal employer guidance.

**Select construction type and circle the applicable year:**

- ☐ Residential completed during Year: One and/or Two
- ☐ Commercial completed during Year: One and/or Two

Note that where necessary, skills can be simulated.

### Rating Scale

3: Exceeds entry level criteria | Requires minimal supervision | Consistently displays this behavior

2: Meets entry level criteria | Requires some supervision | Often displays this behavior

1: Needs improvement | Requires much assistance and supervision | Rarely displays this behavior

## MECHANICAL/HVAC FUNDAMENTALS

Mechanical/HVAC Fundamental Skills	Rating		
Competency and Rating Criteria	Minimum Rating of 2 for EACH Check Rating		
	1	2	3
<b>1. Follows safety procedures</b> <ul style="list-style-type: none"> <li>select and use appropriate clothing and personal protective equipment (PPE)</li> <li>comply with job site safety and security rules and regulations</li> <li>maintain a clean and organized work environment</li> <li>identify and report unsafe job conditions</li> <li>report injuries and damage to property</li> </ul>	<b>Year 1 Rating</b>		
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<b>Year 2 Rating</b>		
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>2. Read construction drawings and plans</b>	<b>Year 1 Rating</b>		

<ul style="list-style-type: none"> <li>relate drawing to job task</li> <li>interpret elements and symbols</li> <li>locate worksite features on a construction plan</li> <li>convert scales measurements to full measurements</li> <li>translate specifications to work requirements</li> </ul>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<b>Year 2 Rating</b>		
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>3. Interprets symbols and procedures</b> <ul style="list-style-type: none"> <li>explain the role of drawings and specifications</li> <li>identify drawings and symbols used on a construction drawing</li> <li>apply information from drawings in construction activities</li> <li>interpret specifications appearing on construction drawings</li> <li>interpret and convert measurements in terms of actual dimensions</li> <li>explain specifications in terms of work requirements</li> </ul>	<b>Year 1 Rating</b>		
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<b>Year 2 Rating</b>		
<b>4. Contributes to a job task plan</b> <ul style="list-style-type: none"> <li>setup and prepare tools and equipment for safe operation</li> <li>determine the scope of work</li> <li>respect contractual relationships</li> <li>apply scheduling practices</li> </ul>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<b>Year 2 Rating</b>		
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>5. Works as a member of a construction team</b> <ul style="list-style-type: none"> <li>offer and request assistance</li> <li>follow company policies and procedures</li> <li>learn from other team members</li> </ul>	<b>Year 1 Rating</b>		
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<b>Year 2 Rating</b>		
<b>6. Prepares work area for construction</b> <ul style="list-style-type: none"> <li>remove debris</li> <li>clean up sites</li> <li>dispose of waste and hazardous materials</li> </ul>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<b>Year 2 Rating</b>		
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>7. Selects construction materials</b> <ul style="list-style-type: none"> <li>consider usefulness and portability</li> <li>consider minimizing cost</li> <li>consider performance goals</li> </ul>	<b>Year 1 Rating</b>		
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<b>Year 2 Rating</b>		
<b>8. Uses hand and light duty tools</b> <ul style="list-style-type: none"> <li>wear appropriate personal protective equipment (PPE)</li> <li>select the correct tool for the job</li> <li>inspect tool</li> <li>operate the tool safely</li> <li>perform routine maintenance on hand tools</li> <li>store tool</li> </ul>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<b>Year 2 Rating</b>		
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

<b>9. Uses power tools and equipment</b> <ul style="list-style-type: none"> <li>• wear appropriate personal protective equipment (PPE)</li> <li>• select the correct tool for the job</li> <li>• inspect tool</li> <li>• operate the tool safely</li> <li>• perform routine maintenance on power tools</li> <li>• store tool</li> </ul>	<b>Year 1 Rating</b>		
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<b>Year 2 Rating</b>		
<b>10. Performs materials handling</b> <ul style="list-style-type: none"> <li>• identify materials necessary to complete the task</li> <li>• conserve resources and materials</li> <li>• retrieve equipment and materials needed</li> <li>• load and unload materials, tools, equipment, and supplies</li> <li>• lift, position, and secure materials during installation</li> </ul>	<b>Year 1 Rating</b>		
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<b>Year 2 Rating</b>		
<b>11. Installs materials per job specifications</b> <ul style="list-style-type: none"> <li>• retrieve equipment and materials needed</li> <li>• unload materials, tools, equipment, and supplies</li> <li>• lift, position, and secure materials during installation</li> </ul>	<b>Year 1 Rating</b>		
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<b>Year 2 Rating</b>		
<b>12. Performs construction measurements</b> <ul style="list-style-type: none"> <li>• select measuring tool</li> <li>• read measurement accurately</li> <li>• scale proportions</li> <li>• convert units of measurement</li> <li>• estimate resources, materials, and supplies needed for a project</li> <li>• record measurements</li> </ul>	<b>Year 1 Rating</b>		
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<b>Year 2 Rating</b>		
<b>13. Maintains a clean and safe work area</b> <ul style="list-style-type: none"> <li>• clean and maintain materials and tools</li> <li>• clean, organize, and put away items in the work area</li> <li>• store materials and tools <i>after use</i></li> <li>• follow facility procedures for clean-up and shut down</li> </ul>	<b>Year 1 Rating</b>		
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<b>Year 2 Rating</b>		
<b>14. Cleans up job site</b> <ul style="list-style-type: none"> <li>• clean and maintain materials and tools</li> <li>• store materials and tools <i>after use</i></li> <li>• follow facility procedures for clean-up and shut down</li> </ul>	<b>Year 1 Rating</b>		
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<b>Year 2 Rating</b>		
<b>15. Practices quality craftsmanship</b> <ul style="list-style-type: none"> <li>• inspect and test work to determine quality</li> <li>• monitor throughout for safety and quality</li> <li>• identify impact of building codes on quality of work</li> <li>• verify work meets job expectation</li> </ul>	<b>Year 1 Rating</b>		
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<b>Year 2 Rating</b>		
<b>Competency Substitute</b> (if you replaced a competency above, note the competency and rating)	<b>Year 1 Rating</b>		
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<b>Year 2 Rating</b>		
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

<b>Comments:</b>			
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## MECHANICAL/HVAC SPECIALTY SKILLS

- ☐ Year 1: Select 1
- ☐ Year 2: Select 1 different specialty skills or type of construction (residential vs. commercial) identified by employer

Mechanical/HVAC Specialty Skills	Rating		
Competency and Rating Criteria	Minimum Rating of 2 for EACH Check Rating		
	1	2	3
<b>16. Assists with basic equipment problem identification and diagnosis for heating and cooling systems</b> <ul style="list-style-type: none"> <li>assist with preventive maintenance procedures on heating and cooling units</li> <li>identify the electrical components of a heating and cooling system</li> <li>use temperature and pressure measuring instruments to make readings at key points in the refrigeration cycle</li> <li>measure temperatures in an operating air conditioning system</li> <li>identify cylinder by color or codes</li> <li>identify function of compressors, condensers, evaporators, metering devices, controls, and accessories</li> </ul>	<b>Year 1 Rating</b>		
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<b>Year 2 Rating</b>		
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>17. Assists with basic equipment repair for air conditioning systems</b> <ul style="list-style-type: none"> <li>assist with troubleshooting operational problems</li> <li>provide preventive maintenance procedures such as: including filter replacement, cleaning of components, and temperature measurements</li> <li>demonstrate proper use of testing equipment</li> </ul>	<b>Year 1 Rating</b>		
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<b>Year 2 Rating</b>		
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>18. Assists with set up and fabrication of metals</b> <ul style="list-style-type: none"> <li>complete general set up for fabrication</li> <li>layout and plan work</li> <li>perform safety checks</li> <li>assemble tools and equipment as required</li> <li>place parts and assemblies into fixtures</li> <li>fabricate metal to meet the specific project requirements</li> </ul>	<b>Year 1 Rating</b>		
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<b>Year 2 Rating</b>		
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

<b>19. Assists with the installation of fabricated parts</b> <ul style="list-style-type: none"> <li>• verify that the metal is fabricated to meet the specific project requirements</li> <li>• assist with the installation of various duct shapes to allow for proper flow</li> <li>• assist with loading unloading of materials, tools, equipment, and supplies</li> <li>• assist in lifting, position, and securing of materials and work pieces during installation</li> <li>• examine how to create and install in the most efficient manner possible (Shop versus site installation)</li> <li>• perform minor maintenance or cleaning of tools and equipment</li> <li>• identify the different strategies to procure materials for fabrication vs. construction.</li> </ul>	<b>Year 1 Rating</b>		
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<b>Year 2 Rating</b>		
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Competency Substitute</b> (if you replaced a competency above, note the competency and rating)	<b>Year 1 Rating</b>		
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<b>Year 2 Rating</b>		
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Comments:</b>			

## RELATED INSTRUCTION

Indicate which related instruction courses the youth apprentice completed:

Course Title	Credits	Location



# Post-Program Completion Survey

Youth Apprenticeship

## YA POST-PROGRAM COMPLETION SURVEY

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The [Post-Program Completion Survey](#) form is to be provided to each student completing the Youth Apprenticeship program to capture information on the student's plans after leaving the program. The form should be filled out during the final meeting between the student, mentor, and Local Youth Apprenticeship Coordinator, when the final checklist is filled out and signed. Information captured on this form must be entered online using the Youth Apprenticeship Online Data Application (YODA) System.



DWD is an equal opportunity employer and service provider. If you have a disability and need assistance with this information, please dial 7-1-1 for Wisconsin Relay Service. Please contact the Division of Employment and Training at 888-258-9966 and press 6 to request information in an alternate format, including translated to another language.

