



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 or two years

REQUIRED COMPETENCIES

Youth apprentices must become proficient in both general employability and occupation-specific competencies. All of these, and examples of how each can be demonstrated, are found in the following pages. **Year 1:** A total of 15 fundamentals competencies and a minimum of 1 specialty competency must be learned for this occupation. **Year 2:** A total of 15 fundamentals competencies and a minimum of 2 different 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 may substitute out one of these and should write in the competency they are adding. Where necessary, skills can be simulated. Youth apprentices must be evaluated on these competencies at least two times each year of their apprenticeship.

Youth Apprentices must also complete the following during Year 1:

- First Aid Certification
- Occupational Safety and Health Administration (OSHA) 10 or 30 Certification

Select construction type and circle the applicable year:

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

Mechanical/HVAC Fundamentals Competencies	Mechanical/HVAC Specialty Competencies
<ol style="list-style-type: none">1. Follow safety procedures2. Read construction drawings and plans3. Interpret symbols and procedures4. Contribute to a job task plan5. Work as a member of a construction team6. Prepare work area for construction7. Select construction materials8. Use hand and light duty tools9. Use power tools and equipment10. Perform materials handling11. Install materials per job specifications	<ol style="list-style-type: none">16. Assist with basic equipment problem identification and diagnosis for heating and cooling systems17. Assist with basic equipment repair for air conditioning systems18. Assist with set up and fabrication of metals19. Assist with the installation of fabricated parts

Mechanical/HVAC Fundamentals Competencies	Mechanical/HVAC Specialty Competencies
12. Perform construction measurements 13. Maintain a clean and safe work area 14. Clean up job site 15. Practice quality craftsmanship	

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 – Environmental Systems Technician
- Sheet Metal Worker-Commercial
- Sheet Metal Worker-Residential

POST-SECONDARY PATHWAY OPPORTUNITIES

There are several post-secondary pathway opportunities in this area. The following is a 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

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.

<u>Employer/Mentor</u>	
1st Evaluation (Required)	2nd Evaluation (Required)
Employer/Mentor Signature	Employer/Mentor Signature
Employer/Mentor	Employer/Mentor
Business/Company	Business/Company
Date Signed	Date Signed

3rd Evaluation (Optional)	4th Evaluation (Optional)
Employer/Mentor Signature	Employer/Mentor Signature
Employer/Mentor	Employer/Mentor
Business/Company	Business/Company
Date Signed	Date Signed

School-Based and/or YA Coordinator**1st Evaluation (Required)****2nd Evaluation (Required)**

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

3rd Evaluation (Optional)**4th Evaluation (Optional)**

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**1st Evaluation (Required)****2nd Evaluation (Required)**

Youth Apprentice Signature	Youth Apprentice Signature
Youth Apprentice	Youth Apprentice
School District / High School	School District / High School
Date Signed	Date Signed

3rd Evaluation (Optional)**4th Evaluation (Optional)**

Youth Apprentice Signature	Youth Apprentice Signature
Youth Apprentice	Youth Apprentice
School District / High School	School District / High School
Date Signed	Date Signed

EMPLOYABILITY SKILLS (TO BE COMPLETED BY YA EMPLOYER/MENTOR)

All youth apprentices must demonstrate the key employability skills listed below in order to complete the YA program. They do so by earning at least a "Meets Expectation" rating in each. **At least two evaluations are required each year of a youth apprenticeship.** More columns are included below for those who choose to conduct more frequent reviews.

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

Competency and Rating Criteria	Rating			
	Initial	Mid Year 1	Mid Year 2	Final
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">• Interacts with others with respect and in a non-judgmental manner• Responds to others in an appropriate and non-offensive manner• Helps co-workers and peers accomplish tasks or goals• Applies problem-solving strategies to improve relations with others• When managing others, shows traits such as compassion, listening, coaching, team development, and appreciation	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 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">• Adjusts the communication approach for the target audience, purpose, and situation to maximize impact• Organizes messages/information in a logical and helpful manner• Speaks clearly and writes legibly• Models behaviors to show active listening• Applies what was read to actual practice• Asks appropriate questions for clarity	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3			
3. Collaborates with others <i>Examples of qualities and habits that the employee might exhibit include . . .</i> <ul style="list-style-type: none">• Works effectively in teams with people of diverse backgrounds regardless of sex, race, ethnicity, nationality, sexuality, religion, political views, and abilities• Shares responsibility for collaborative work and decision making• Uses the problem-solving process to work through differences of opinion in a constructive manner to achieve a reasonable compromise• Avoids contributing to an unproductive group conflict Shares information and carries out responsibilities in a timely manner	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3			

Employability Skills		Rating			
Competency and Rating Criteria		Initial	Mid Year 1	Mid Year 2	Final
4. Maintains composure under pressure	<i>Examples of qualities and habits that the employee might exhibit include . . .</i>	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3			
5. Demonstrates integrity	<i>Examples of qualities and habits that the employee might exhibit include . . .</i>	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3			
6. Performs quality work	<i>Examples of qualities and habits that the employee might exhibit include . . .</i>	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3			
7. Provides quality goods or services (internal and external)	<i>Examples of qualities and habits that the employee might exhibit include . . .</i>	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3			

Competency and Rating Criteria	Rating			
	Initial	Mid Year 1	Mid Year 2	Final
8. Shows initiative and self-direction <i>Examples of qualities and habits that the employee might exhibit include . . .</i> <ul style="list-style-type: none">• Prioritizes and carries out responsibilities without being told• Responds with enthusiasm and flexibility to handle tasks that need immediate attention• Reflects on any unsatisfactory outcome as an opportunity to learn• Improves personal performance by doing something different or differently• Analyzes how own actions impact the overall organization• Supports own action with sound reasoning and principles• Balances personal activities to minimize interference with work responsibilities	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3			
9. Adapts to change <i>Examples of qualities and habits that the employee might exhibit include . . . Shows flexibility and willingness to learn new skills for various job roles</i> <ul style="list-style-type: none">• Uses problem-solving and critical-thinking skills to cope with changing circumstances• Modifies own work behavior based on feedback, unsatisfactory outcomes, efficiency, and effectiveness• Displays a "can do" attitude	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 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">• Follows personal safety requirements• Maintains a safe work environment• Demonstrates professional role in an emergency• Follows security procedures• Maintains confidentiality	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3			
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">• Applies technology effectively in the workplace• Assesses and evaluates information on the job• Assesses training manuals, website, and other media related to the job	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3			
12. Fulfills training or certification requirements for employment <i>Examples of this requirement may include . . .</i> <ul style="list-style-type: none">• Participation in required career-related training and/or educational programs• Passing certification tests to qualify for licensure and/or certification• Participation in company training or orientation	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3			
13. Sets personal goals for improvement <i>Examples of this requirement may include . . .</i> <ul style="list-style-type: none">• Setting goals that are specific and measurable• Setting work-related goals that align with the organization's mission• Identifying strategies to reach goals• Reflecting on goal progress to regularly evaluate and modify goals	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3			

OCCUPATIONAL COMPETENCIES (TO BE COMPLETED BY YA EMPLOYER/MENTOR)

Youth apprentices must earn a rating of at least "MEETS EXPECTATIONS" in each competency by the conclusion of the apprenticeship. **Year 1:** A total of 15 fundamentals occupational competencies and a minimum of 1 specialty competency. **Year 2:** A total of 15 fundamentals occupational competencies and a minimum of 2 specialty competencies different than first year.

A specialty competency may be repeated only if the type of construction (residential or commercial) differs from the first year. Employers may substitute out one of these and should write in the competency they are adding. Where necessary, skills can be simulated. **At least two evaluations are required each year of a youth apprenticeship.** More columns are included below for those who choose to conduct more frequent reviews.

Youth Apprentices must also complete the following during Year 1:

- First Aid Certification
- Occupational Safety Health Administration (OSHA) 10 or 30

Select construction type and circle the applicable year:

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

MECHANICAL/HVAC FUNDAMENTALS

Competency and Rating Criteria	Occupational Competencies				Rating			
					Evaluation			
					Minimum Rating of 2 for EACH Check Rating			
	Initial	Mid Year 1	Mid Year 2	Final				
1. Follows safety procedures <ul style="list-style-type: none">• select and use appropriate clothing and personal protective equipment (PPE)• comply with job site safety and security rules and regulations• maintain a clean and organized work environment• identify and report unsafe job conditions• report injuries and damage to property	Year 1 Rating				<input type="checkbox"/> 1	<input type="checkbox"/> 1	<input type="checkbox"/> 1	<input type="checkbox"/> 1
					<input type="checkbox"/> 2	<input type="checkbox"/> 2	<input type="checkbox"/> 2	<input type="checkbox"/> 2
					<input type="checkbox"/> 3	<input type="checkbox"/> 3	<input type="checkbox"/> 3	<input type="checkbox"/> 3
	Year 2 Rating				<input type="checkbox"/> 1	<input type="checkbox"/> 1	<input type="checkbox"/> 1	<input type="checkbox"/> 1
					<input type="checkbox"/> 2	<input type="checkbox"/> 2	<input type="checkbox"/> 2	<input type="checkbox"/> 2
					<input type="checkbox"/> 3	<input type="checkbox"/> 3	<input type="checkbox"/> 3	<input type="checkbox"/> 3

Competency and Rating Criteria	Occupational Competencies				Rating			
	Evaluation				Minimum Rating of 2 for EACH Check Rating			
	Initial	Mid Year 1	Mid Year 2	Final	Initial	Mid Year 1	Mid Year 2	Final
2. Read construction drawings and plans <ul style="list-style-type: none"> relate drawing to job task interpret elements and symbols locate worksite features on a construction plan convert scales measurements to full measurements translate specifications to work requirements 	Year 1 Rating							
	<input type="checkbox"/> 1	<input type="checkbox"/> 1	<input type="checkbox"/> 1	<input type="checkbox"/> 1				
	<input type="checkbox"/> 2	<input type="checkbox"/> 2	<input type="checkbox"/> 2	<input type="checkbox"/> 2				
	<input type="checkbox"/> 3	<input type="checkbox"/> 3	<input type="checkbox"/> 3	<input type="checkbox"/> 3				
3. Interprets symbols and procedures <ul style="list-style-type: none"> explain the role of drawings and specifications identify drawings and symbols used on a construction drawing apply information from drawings in construction activities interpret specifications appearing on construction drawings interpret and convert measurements in terms of actual dimensions explain specifications in terms of work requirements 	Year 1 Rating							
	<input type="checkbox"/> 1	<input type="checkbox"/> 1	<input type="checkbox"/> 1	<input type="checkbox"/> 1				
	<input type="checkbox"/> 2	<input type="checkbox"/> 2	<input type="checkbox"/> 2	<input type="checkbox"/> 2				
	<input type="checkbox"/> 3	<input type="checkbox"/> 3	<input type="checkbox"/> 3	<input type="checkbox"/> 3				
4. Contributes to a job task plan <ul style="list-style-type: none"> setup and prepare tools and equipment for safe operation determine the scope of work respect contractual relationships apply scheduling practices 	Year 1 Rating							
	<input type="checkbox"/> 1	<input type="checkbox"/> 1	<input type="checkbox"/> 1	<input type="checkbox"/> 1				
	<input type="checkbox"/> 2	<input type="checkbox"/> 2	<input type="checkbox"/> 2	<input type="checkbox"/> 2				
	<input type="checkbox"/> 3	<input type="checkbox"/> 3	<input type="checkbox"/> 3	<input type="checkbox"/> 3				
5. Works as a member of a construction team <ul style="list-style-type: none"> offer and request assistance follow company policies and procedures learn from other team members 	Year 1 Rating							
	<input type="checkbox"/> 1	<input type="checkbox"/> 1	<input type="checkbox"/> 1	<input type="checkbox"/> 1				
	<input type="checkbox"/> 2	<input type="checkbox"/> 2	<input type="checkbox"/> 2	<input type="checkbox"/> 2				
	<input type="checkbox"/> 3	<input type="checkbox"/> 3	<input type="checkbox"/> 3	<input type="checkbox"/> 3				
	Year 2 Rating							
	<input type="checkbox"/> 1	<input type="checkbox"/> 1	<input type="checkbox"/> 1	<input type="checkbox"/> 1				
	<input type="checkbox"/> 2	<input type="checkbox"/> 2	<input type="checkbox"/> 2	<input type="checkbox"/> 2				
	<input type="checkbox"/> 3	<input type="checkbox"/> 3	<input type="checkbox"/> 3	<input type="checkbox"/> 3				

Competency and Rating Criteria	Occupational Competencies				Rating			
	Evaluation				Minimum Rating of 2 for EACH Check Rating			
	Initial	Mid Year 1	Mid Year 2	Final				
6. Prepares work area for construction <ul style="list-style-type: none">remove debrisclean up sitesdispose of waste and hazardous materials	Year 1 Rating							
	<input type="checkbox"/> 1	<input type="checkbox"/> 1	<input type="checkbox"/> 1	<input type="checkbox"/> 1				
	<input type="checkbox"/> 2	<input type="checkbox"/> 2	<input type="checkbox"/> 2	<input type="checkbox"/> 2				
	<input type="checkbox"/> 3	<input type="checkbox"/> 3	<input type="checkbox"/> 3	<input type="checkbox"/> 3				
	Year 2 Rating							
	<input type="checkbox"/> 1	<input type="checkbox"/> 1	<input type="checkbox"/> 1	<input type="checkbox"/> 1				
	<input type="checkbox"/> 2	<input type="checkbox"/> 2	<input type="checkbox"/> 2	<input type="checkbox"/> 2				
	<input type="checkbox"/> 3	<input type="checkbox"/> 3	<input type="checkbox"/> 3	<input type="checkbox"/> 3				
7. Selects construction materials <ul style="list-style-type: none">consider usefulness and portabilityconsider minimizing costconsider performance goals	Year 1 Rating							
	<input type="checkbox"/> 1	<input type="checkbox"/> 1	<input type="checkbox"/> 1	<input type="checkbox"/> 1				
	<input type="checkbox"/> 2	<input type="checkbox"/> 2	<input type="checkbox"/> 2	<input type="checkbox"/> 2				
	<input type="checkbox"/> 3	<input type="checkbox"/> 3	<input type="checkbox"/> 3	<input type="checkbox"/> 3				
	Year 2 Rating							
	<input type="checkbox"/> 1	<input type="checkbox"/> 1	<input type="checkbox"/> 1	<input type="checkbox"/> 1				
	<input type="checkbox"/> 2	<input type="checkbox"/> 2	<input type="checkbox"/> 2	<input type="checkbox"/> 2				
	<input type="checkbox"/> 3	<input type="checkbox"/> 3	<input type="checkbox"/> 3	<input type="checkbox"/> 3				
8. Uses hand and light duty tools <ul style="list-style-type: none">wear appropriate personal protective equipment (PPE)select the correct tool for the jobinspect tooloperate the tool safelyperform routine maintenance on hand toolsstore tool	Year 1 Rating							
	<input type="checkbox"/> 1	<input type="checkbox"/> 1	<input type="checkbox"/> 1	<input type="checkbox"/> 1				
	<input type="checkbox"/> 2	<input type="checkbox"/> 2	<input type="checkbox"/> 2	<input type="checkbox"/> 2				
	<input type="checkbox"/> 3	<input type="checkbox"/> 3	<input type="checkbox"/> 3	<input type="checkbox"/> 3				
	Year 2 Rating							
	<input type="checkbox"/> 1	<input type="checkbox"/> 1	<input type="checkbox"/> 1	<input type="checkbox"/> 1				
	<input type="checkbox"/> 2	<input type="checkbox"/> 2	<input type="checkbox"/> 2	<input type="checkbox"/> 2				
	<input type="checkbox"/> 3	<input type="checkbox"/> 3	<input type="checkbox"/> 3	<input type="checkbox"/> 3				
9. Uses power tools and equipment <ul style="list-style-type: none">wear appropriate personal protective equipment (PPE)select the correct tool for the jobinspect tooloperate the tool safelyperform routine maintenance on power toolsstore tool	Year 1 Rating							
	<input type="checkbox"/> 1	<input type="checkbox"/> 1	<input type="checkbox"/> 1	<input type="checkbox"/> 1				
	<input type="checkbox"/> 2	<input type="checkbox"/> 2	<input type="checkbox"/> 2	<input type="checkbox"/> 2				
	<input type="checkbox"/> 3	<input type="checkbox"/> 3	<input type="checkbox"/> 3	<input type="checkbox"/> 3				
	Year 2 Rating							
	<input type="checkbox"/> 1	<input type="checkbox"/> 1	<input type="checkbox"/> 1	<input type="checkbox"/> 1				
	<input type="checkbox"/> 2	<input type="checkbox"/> 2	<input type="checkbox"/> 2	<input type="checkbox"/> 2				
	<input type="checkbox"/> 3	<input type="checkbox"/> 3	<input type="checkbox"/> 3	<input type="checkbox"/> 3				

Competency and Rating Criteria	Occupational Competencies				Rating			
	Evaluation				Minimum Rating of 2 for EACH Check Rating			
	Initial	Mid Year 1	Mid Year 2	Final				
10. Performs materials handling	Year 1 Rating							
• identify materials necessary to complete the task	<input type="checkbox"/> 1	<input type="checkbox"/> 1	<input type="checkbox"/> 1	<input type="checkbox"/> 1				
• conserve resources and materials	<input type="checkbox"/> 2	<input type="checkbox"/> 2	<input type="checkbox"/> 2	<input type="checkbox"/> 2				
• retrieve equipment and materials needed	<input type="checkbox"/> 3	<input type="checkbox"/> 3	<input type="checkbox"/> 3	<input type="checkbox"/> 3				
• load and unload materials, tools, equipment, and supplies								
• lift, position, and secure materials during installation								
11. Installs materials per job specifications	Year 1 Rating							
• retrieve equipment and materials needed	<input type="checkbox"/> 1	<input type="checkbox"/> 1	<input type="checkbox"/> 1	<input type="checkbox"/> 1				
• unload materials, tools, equipment, and supplies	<input type="checkbox"/> 2	<input type="checkbox"/> 2	<input type="checkbox"/> 2	<input type="checkbox"/> 2				
• lift, position, and secure materials during installation	<input type="checkbox"/> 3	<input type="checkbox"/> 3	<input type="checkbox"/> 3	<input type="checkbox"/> 3				
	Year 2 Rating							
	<input type="checkbox"/> 1	<input type="checkbox"/> 1	<input type="checkbox"/> 1	<input type="checkbox"/> 1				
	<input type="checkbox"/> 2	<input type="checkbox"/> 2	<input type="checkbox"/> 2	<input type="checkbox"/> 2				
	<input type="checkbox"/> 3	<input type="checkbox"/> 3	<input type="checkbox"/> 3	<input type="checkbox"/> 3				
12. Performs construction measurements	Year 1 Rating							
• select measuring tool	<input type="checkbox"/> 1	<input type="checkbox"/> 1	<input type="checkbox"/> 1	<input type="checkbox"/> 1				
• read measurement accurately	<input type="checkbox"/> 2	<input type="checkbox"/> 2	<input type="checkbox"/> 2	<input type="checkbox"/> 2				
• scale proportions	<input type="checkbox"/> 3	<input type="checkbox"/> 3	<input type="checkbox"/> 3	<input type="checkbox"/> 3				
• convert units of measurement								
• estimate resources, materials, and supplies needed for a project								
• record measurements								
	Year 2 Rating							
	<input type="checkbox"/> 1	<input type="checkbox"/> 1	<input type="checkbox"/> 1	<input type="checkbox"/> 1				
	<input type="checkbox"/> 2	<input type="checkbox"/> 2	<input type="checkbox"/> 2	<input type="checkbox"/> 2				
	<input type="checkbox"/> 3	<input type="checkbox"/> 3	<input type="checkbox"/> 3	<input type="checkbox"/> 3				
13. Maintains a clean and safe work area	Year 1 Rating							
• clean and maintain materials and tools	<input type="checkbox"/> 1	<input type="checkbox"/> 1	<input type="checkbox"/> 1	<input type="checkbox"/> 1				
• clean, organize, and put away items in the work area	<input type="checkbox"/> 2	<input type="checkbox"/> 2	<input type="checkbox"/> 2	<input type="checkbox"/> 2				
• store materials and tools <i>after use</i>	<input type="checkbox"/> 3	<input type="checkbox"/> 3	<input type="checkbox"/> 3	<input type="checkbox"/> 3				
• follow facility procedures for clean-up and shut down								
	Year 2 Rating							
	<input type="checkbox"/> 1	<input type="checkbox"/> 1	<input type="checkbox"/> 1	<input type="checkbox"/> 1				
	<input type="checkbox"/> 2	<input type="checkbox"/> 2	<input type="checkbox"/> 2	<input type="checkbox"/> 2				
	<input type="checkbox"/> 3	<input type="checkbox"/> 3	<input type="checkbox"/> 3	<input type="checkbox"/> 3				

Occupational Competencies				Rating																											
Competency and Rating Criteria				Evaluation																											
				Minimum Rating of 2 for EACH Check Rating																											
Initial	Mid Year 1	Mid Year 2	Final																												
14. Cleans up job site <ul style="list-style-type: none"> clean and maintain materials and tools store materials and tools <i>after use</i> follow facility procedures for clean-up and shut down 				Year 1 Rating <table border="1"> <tr> <td><input type="checkbox"/> 1</td> <td><input type="checkbox"/> 1</td> <td><input type="checkbox"/> 1</td> <td><input type="checkbox"/> 1</td> </tr> <tr> <td><input type="checkbox"/> 2</td> <td><input type="checkbox"/> 2</td> <td><input type="checkbox"/> 2</td> <td><input type="checkbox"/> 2</td> </tr> <tr> <td><input type="checkbox"/> 3</td> <td><input type="checkbox"/> 3</td> <td><input type="checkbox"/> 3</td> <td><input type="checkbox"/> 3</td> </tr> </table> Year 2 Rating <table border="1"> <tr> <td><input type="checkbox"/> 1</td> <td><input type="checkbox"/> 1</td> <td><input type="checkbox"/> 1</td> <td><input type="checkbox"/> 1</td> </tr> <tr> <td><input type="checkbox"/> 2</td> <td><input type="checkbox"/> 2</td> <td><input type="checkbox"/> 2</td> <td><input type="checkbox"/> 2</td> </tr> <tr> <td><input type="checkbox"/> 3</td> <td><input type="checkbox"/> 3</td> <td><input type="checkbox"/> 3</td> <td><input type="checkbox"/> 3</td> </tr> </table>				<input type="checkbox"/> 1	<input type="checkbox"/> 1	<input type="checkbox"/> 1	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 2	<input type="checkbox"/> 2	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 3	<input type="checkbox"/> 3	<input type="checkbox"/> 3	<input type="checkbox"/> 1	<input type="checkbox"/> 1	<input type="checkbox"/> 1	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 2	<input type="checkbox"/> 2	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 3	<input type="checkbox"/> 3	<input type="checkbox"/> 3
<input type="checkbox"/> 1	<input type="checkbox"/> 1	<input type="checkbox"/> 1	<input type="checkbox"/> 1																												
<input type="checkbox"/> 2	<input type="checkbox"/> 2	<input type="checkbox"/> 2	<input type="checkbox"/> 2																												
<input type="checkbox"/> 3	<input type="checkbox"/> 3	<input type="checkbox"/> 3	<input type="checkbox"/> 3																												
<input type="checkbox"/> 1	<input type="checkbox"/> 1	<input type="checkbox"/> 1	<input type="checkbox"/> 1																												
<input type="checkbox"/> 2	<input type="checkbox"/> 2	<input type="checkbox"/> 2	<input type="checkbox"/> 2																												
<input type="checkbox"/> 3	<input type="checkbox"/> 3	<input type="checkbox"/> 3	<input type="checkbox"/> 3																												
15. Practices quality craftsmanship <ul style="list-style-type: none"> inspect and test work to determine quality monitor throughout for safety and quality identify impact of building codes on quality of work verify work meets job expectation 				Year 1 Rating <table border="1"> <tr> <td><input type="checkbox"/> 1</td> <td><input type="checkbox"/> 1</td> <td><input type="checkbox"/> 1</td> <td><input type="checkbox"/> 1</td> </tr> <tr> <td><input type="checkbox"/> 2</td> <td><input type="checkbox"/> 2</td> <td><input type="checkbox"/> 2</td> <td><input type="checkbox"/> 2</td> </tr> <tr> <td><input type="checkbox"/> 3</td> <td><input type="checkbox"/> 3</td> <td><input type="checkbox"/> 3</td> <td><input type="checkbox"/> 3</td> </tr> </table> Year 2 Rating <table border="1"> <tr> <td><input type="checkbox"/> 1</td> <td><input type="checkbox"/> 1</td> <td><input type="checkbox"/> 1</td> <td><input type="checkbox"/> 1</td> </tr> <tr> <td><input type="checkbox"/> 2</td> <td><input type="checkbox"/> 2</td> <td><input type="checkbox"/> 2</td> <td><input type="checkbox"/> 2</td> </tr> <tr> <td><input type="checkbox"/> 3</td> <td><input type="checkbox"/> 3</td> <td><input type="checkbox"/> 3</td> <td><input type="checkbox"/> 3</td> </tr> </table>				<input type="checkbox"/> 1	<input type="checkbox"/> 1	<input type="checkbox"/> 1	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 2	<input type="checkbox"/> 2	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 3	<input type="checkbox"/> 3	<input type="checkbox"/> 3	<input type="checkbox"/> 1	<input type="checkbox"/> 1	<input type="checkbox"/> 1	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 2	<input type="checkbox"/> 2	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 3	<input type="checkbox"/> 3	<input type="checkbox"/> 3
<input type="checkbox"/> 1	<input type="checkbox"/> 1	<input type="checkbox"/> 1	<input type="checkbox"/> 1																												
<input type="checkbox"/> 2	<input type="checkbox"/> 2	<input type="checkbox"/> 2	<input type="checkbox"/> 2																												
<input type="checkbox"/> 3	<input type="checkbox"/> 3	<input type="checkbox"/> 3	<input type="checkbox"/> 3																												
<input type="checkbox"/> 1	<input type="checkbox"/> 1	<input type="checkbox"/> 1	<input type="checkbox"/> 1																												
<input type="checkbox"/> 2	<input type="checkbox"/> 2	<input type="checkbox"/> 2	<input type="checkbox"/> 2																												
<input type="checkbox"/> 3	<input type="checkbox"/> 3	<input type="checkbox"/> 3	<input type="checkbox"/> 3																												
Competency Substitute (if you replaced a competency above, note the competency and rating)				Year 1 Rating <table border="1"> <tr> <td><input type="checkbox"/> 1</td> <td><input type="checkbox"/> 1</td> <td><input type="checkbox"/> 1</td> <td><input type="checkbox"/> 1</td> </tr> <tr> <td><input type="checkbox"/> 2</td> <td><input type="checkbox"/> 2</td> <td><input type="checkbox"/> 2</td> <td><input type="checkbox"/> 2</td> </tr> <tr> <td><input type="checkbox"/> 3</td> <td><input type="checkbox"/> 3</td> <td><input type="checkbox"/> 3</td> <td><input type="checkbox"/> 3</td> </tr> </table> Year 2 Rating <table border="1"> <tr> <td><input type="checkbox"/> 1</td> <td><input type="checkbox"/> 1</td> <td><input type="checkbox"/> 1</td> <td><input type="checkbox"/> 1</td> </tr> <tr> <td><input type="checkbox"/> 2</td> <td><input type="checkbox"/> 2</td> <td><input type="checkbox"/> 2</td> <td><input type="checkbox"/> 2</td> </tr> <tr> <td><input type="checkbox"/> 3</td> <td><input type="checkbox"/> 3</td> <td><input type="checkbox"/> 3</td> <td><input type="checkbox"/> 3</td> </tr> </table>				<input type="checkbox"/> 1	<input type="checkbox"/> 1	<input type="checkbox"/> 1	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 2	<input type="checkbox"/> 2	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 3	<input type="checkbox"/> 3	<input type="checkbox"/> 3	<input type="checkbox"/> 1	<input type="checkbox"/> 1	<input type="checkbox"/> 1	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 2	<input type="checkbox"/> 2	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 3	<input type="checkbox"/> 3	<input type="checkbox"/> 3
<input type="checkbox"/> 1	<input type="checkbox"/> 1	<input type="checkbox"/> 1	<input type="checkbox"/> 1																												
<input type="checkbox"/> 2	<input type="checkbox"/> 2	<input type="checkbox"/> 2	<input type="checkbox"/> 2																												
<input type="checkbox"/> 3	<input type="checkbox"/> 3	<input type="checkbox"/> 3	<input type="checkbox"/> 3																												
<input type="checkbox"/> 1	<input type="checkbox"/> 1	<input type="checkbox"/> 1	<input type="checkbox"/> 1																												
<input type="checkbox"/> 2	<input type="checkbox"/> 2	<input type="checkbox"/> 2	<input type="checkbox"/> 2																												
<input type="checkbox"/> 3	<input type="checkbox"/> 3	<input type="checkbox"/> 3	<input type="checkbox"/> 3																												
Comments:																															

MECHANICAL/HVAC SPECIALTY SKILLS
(TO BE COMPLETED BY YA EMPLOYER/MENTOR)

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

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

Occupational Competencies		Rating																											
Competency and Rating Criteria		Minimum Rating of 2 for EACH Check Rating																											
Initial	Mid Year 1	Mid Year 2	Final																										
19. Assists with the installation of fabricated parts <ul style="list-style-type: none"> verify that the metal is fabricated to meet the specific project requirements assist with the installation of various duct shapes to allow for proper flow assist with loading unloading of materials, tools, equipment, and supplies assist in lifting, position, and securing of materials and work pieces during installation examine how to create and install in the most efficient manner possible (Shop versus site installation) perform minor maintenance or cleaning of tools and equipment identify the different strategies to procure materials for fabrication vs. construction. 		Year 1 Rating <table border="1" style="margin-left: auto; margin-right: auto;"> <tr><td><input type="checkbox"/> 1</td><td><input type="checkbox"/> 1</td><td><input type="checkbox"/> 1</td><td><input type="checkbox"/> 1</td></tr> <tr><td><input type="checkbox"/> 2</td><td><input type="checkbox"/> 2</td><td><input type="checkbox"/> 2</td><td><input type="checkbox"/> 2</td></tr> <tr><td><input type="checkbox"/> 3</td><td><input type="checkbox"/> 3</td><td><input type="checkbox"/> 3</td><td><input type="checkbox"/> 3</td></tr> </table> Year 2 Rating <table border="1" style="margin-left: auto; margin-right: auto;"> <tr><td><input type="checkbox"/> 1</td><td><input type="checkbox"/> 1</td><td><input type="checkbox"/> 1</td><td><input type="checkbox"/> 1</td></tr> <tr><td><input type="checkbox"/> 2</td><td><input type="checkbox"/> 2</td><td><input type="checkbox"/> 2</td><td><input type="checkbox"/> 2</td></tr> <tr><td><input type="checkbox"/> 3</td><td><input type="checkbox"/> 3</td><td><input type="checkbox"/> 3</td><td><input type="checkbox"/> 3</td></tr> </table>				<input type="checkbox"/> 1	<input type="checkbox"/> 1	<input type="checkbox"/> 1	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 2	<input type="checkbox"/> 2	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 3	<input type="checkbox"/> 3	<input type="checkbox"/> 3	<input type="checkbox"/> 1	<input type="checkbox"/> 1	<input type="checkbox"/> 1	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 2	<input type="checkbox"/> 2	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 3	<input type="checkbox"/> 3	<input type="checkbox"/> 3
<input type="checkbox"/> 1	<input type="checkbox"/> 1	<input type="checkbox"/> 1	<input type="checkbox"/> 1																										
<input type="checkbox"/> 2	<input type="checkbox"/> 2	<input type="checkbox"/> 2	<input type="checkbox"/> 2																										
<input type="checkbox"/> 3	<input type="checkbox"/> 3	<input type="checkbox"/> 3	<input type="checkbox"/> 3																										
<input type="checkbox"/> 1	<input type="checkbox"/> 1	<input type="checkbox"/> 1	<input type="checkbox"/> 1																										
<input type="checkbox"/> 2	<input type="checkbox"/> 2	<input type="checkbox"/> 2	<input type="checkbox"/> 2																										
<input type="checkbox"/> 3	<input type="checkbox"/> 3	<input type="checkbox"/> 3	<input type="checkbox"/> 3																										
Competency Substitute (if you replaced a competency above, note the competency and rating)		Year 1 Rating <table border="1" style="margin-left: auto; margin-right: auto;"> <tr><td><input type="checkbox"/> 1</td><td><input type="checkbox"/> 1</td><td><input type="checkbox"/> 1</td><td><input type="checkbox"/> 1</td></tr> <tr><td><input type="checkbox"/> 2</td><td><input type="checkbox"/> 2</td><td><input type="checkbox"/> 2</td><td><input type="checkbox"/> 2</td></tr> <tr><td><input type="checkbox"/> 3</td><td><input type="checkbox"/> 3</td><td><input type="checkbox"/> 3</td><td><input type="checkbox"/> 3</td></tr> </table> Year 2 Rating <table border="1" style="margin-left: auto; margin-right: auto;"> <tr><td><input type="checkbox"/> 1</td><td><input type="checkbox"/> 1</td><td><input type="checkbox"/> 1</td><td><input type="checkbox"/> 1</td></tr> <tr><td><input type="checkbox"/> 2</td><td><input type="checkbox"/> 2</td><td><input type="checkbox"/> 2</td><td><input type="checkbox"/> 2</td></tr> <tr><td><input type="checkbox"/> 3</td><td><input type="checkbox"/> 3</td><td><input type="checkbox"/> 3</td><td><input type="checkbox"/> 3</td></tr> </table>				<input type="checkbox"/> 1	<input type="checkbox"/> 1	<input type="checkbox"/> 1	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 2	<input type="checkbox"/> 2	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 3	<input type="checkbox"/> 3	<input type="checkbox"/> 3	<input type="checkbox"/> 1	<input type="checkbox"/> 1	<input type="checkbox"/> 1	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 2	<input type="checkbox"/> 2	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 3	<input type="checkbox"/> 3	<input type="checkbox"/> 3
<input type="checkbox"/> 1	<input type="checkbox"/> 1	<input type="checkbox"/> 1	<input type="checkbox"/> 1																										
<input type="checkbox"/> 2	<input type="checkbox"/> 2	<input type="checkbox"/> 2	<input type="checkbox"/> 2																										
<input type="checkbox"/> 3	<input type="checkbox"/> 3	<input type="checkbox"/> 3	<input type="checkbox"/> 3																										
<input type="checkbox"/> 1	<input type="checkbox"/> 1	<input type="checkbox"/> 1	<input type="checkbox"/> 1																										
<input type="checkbox"/> 2	<input type="checkbox"/> 2	<input type="checkbox"/> 2	<input type="checkbox"/> 2																										
<input type="checkbox"/> 3	<input type="checkbox"/> 3	<input type="checkbox"/> 3	<input type="checkbox"/> 3																										
Comments:																													

No part of this document may be altered, duplicated, or extracted without written consent from the Wisconsin Department of Workforce Development (DWD).

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.

