

### **EMPLOYABILITY PROFILE**

# Heating, Ventilation, A/C & Refrigeration HVACR

#### **Industry-Based Skill Standards**

**Proficiency Definitions** 

NA = Not Applicable 1 = Developing 2 = Basic 3 = Proficient 4 = Mastery

	9th	10th	11th	12th		9th	10th	11th	12th
Safety					System Components Identification				
Demonstrates workplace safety that follows industry rules, procedures, and workplace norms			Can identify and understands the function of key components in HVACR systems such as compressors, condensers, evaporators, metering devices, and thermostats						
Material Handling					Motor Controls				
Demonstrates safe, efficient, and legally compliant movement, storage, use, and disposal of all tools, components, and substances required for installation, maintenance, and repair of HVACR equipment				Demonstrates understanding of motor controls systems and can safely and efficiently manage the operation of motors (for fans, pumps, and compressors), regulating functions such as starting/stopping, speed adjustment, and providing protection against electrical faults					
Tool Identification and Usage					Control Devices and Relays				
Demonstrates proper identification and safe use of common HVACR hand and power tools, as well as essential diagnostic equipment like multimeters, thermometers, and pressure gauges			Can explain the use and function of control devices in the industry and demonstrate the proper use of relays						
Electrical Fundamentals					System Installation				
Demonstrates an understanding of electrical theory, reading simple wiring diagrams, and can perform basic circuit measurements			Demonstrate proficiency in installing, maintaining, and repairing various systems, including air conditioning units, gas furnaces, heat pumps, and smart HVAC systems						
Piping and Joining					Refrigeration				
Demonstrates proper methods for joining pipe soldering and brazing copper tubing	s, includ	ing safe p	oractices t	or	Identify the proper equipment needed to recover re refrigeration recovery	frigeran	t and sho	ow a succ	essful
Ductwork					Recharging				
Demonstrates proper skills in working with sheet metal, basic duct fabrication, and installation principles.				Demonstrate the proper equipment needed and display a successful refrigeration leak detention and recharging procedure					
Maintenance and Repair					Testing and Analyzing Compressors				
Can perform routine maintenance tasks, such as cleaning coils, replacing filters and belts, lubricating motors, and checking system charge			Shows understanding of how machines work, including testing and analyzing compressors						



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### **HVACR**

WORK-BASED LEARNING			POSTSECONDARY CREDIT				
Type of WBL Experience	Year	Hours	College Course	Possible Cr.		Attained	
			ELM 102 Safety in Industry	1		Υ	N
			ELM100 Introduction to Problem Solving	2		Υ	N
						Υ	N
						Υ	N
			Technical Assessment	Passed			
			YouScience HVAC-R #518 (written)	Υ		N	
			YouScience HVAC-R #518 (performance)	Υ		N	
				,	Y		V
			CERTIFICATIONS, ENDORSEMENTS, LICENSES				
			Title	Date Obtained			
			OSHA 10 Construction Safety				
			EPA Section 608 Certification				
TOTAL							

AWARDS, SPECIAL RECOGNITION, SCHOLARSHIPS	DIPLOMA	Date Obtained		
	Diploma Earned: Insert diploma type here			
	Technical Endorsement on Diploma?	Υ	N	