



Sumter Adult and Community Education Center
RECORD OF ACHIEVEMENTS
AIR CONDITIONING, REFRIGERATION & HEATING TECHNOLOGY 1

Student Name:

OCP A	AIR CONDITIONING, REFRIGERATION & HEATING HELPER – 250 HOURS	
01.0	Demonstrate the importance of health, safety and environmental management systems in organizations and their importance to organizational performance and regulatory compliance.	
02.0	Identify, use and maintain the tools and tool accessories used in the heating, air-conditioning and refrigeration industry.	
03.0	Demonstrate mathematics knowledge and skills.	
04.0	Demonstrate a practical knowledge of basic electricity and of the electrical components of heating, air-conditioning and refrigeration equipment.	
05.0	Troubleshoot heating, air-conditioning and refrigeration electrical control systems and their components.	
06.0	Select and test electrical generation and distribution components for commercial heating and air conditioning systems.	
07.0	Maintain, test and troubleshoot electrical motors and their components for commercial heating and air-conditioning systems.	
08.0	Troubleshoot and wire electrical motors and their components.	
09.0	Operate solid-state electronics as used in heating, air-conditioning and refrigeration systems.	
10.0	Evaluate single-phase and three-phase power as used in heating, air-conditioning and refrigeration systems.	
11.0	Explain the function of basic electronics.	
OCP B	AIR CONDITIONING, REFRIGERATION & HEATING MECHANIC ASSISTANT – 250 HOURS	
12.0	Read construction documents.	
13.0	Describe the history and concepts of heating, air-conditioning and refrigeration.	
14.0	Demonstrate science knowledge and skills	
15.0	Explain the properties of matter and heat behavior.	
16.0	Analyze fluids, pressures, refrigerants and related codes.	
17.0	Evaluate heating, air-conditioning and refrigeration system components and accessories.	
18.0	Select appropriate commercial compressors.	
19.0	Test and adjust commercial evaporative condensers.	
20.0	Maintain, test and troubleshoot commercial evaporators.	
21.0	Fabricate and service the piping, tubing and fittings used in the heating, air-conditioning and refrigeration industry.	
22.0	Explain the importance of employability and entrepreneurship skills.	
OCP C	AIR CONDITIONING, REFRIGERATION & HEATING MECHANIC 1 – 250 HOURS	
23.0	Identify basic principles of heating, air conditioning, refrigeration and ventilation piping sizing.	
24.0	Utilize and operate mechanical refrigeration servicing and testing equipment.	
25.0	Assist in the installation of a residential heating and air-conditioning system and determine start-up procedures.	

26.0	Conduct start-up and check-out procedures for mechanical heating and air-conditioning systems.	
27.0	Demonstrate a working knowledge of refrigerants and oils.	
28.0	Interpret, use and modify construction drawings and specifications.	
29.0	Conduct system startup and shutdown.	
30.0	Design heating and cooling systems.	

Legend: ✓ = Achieved P = Partially Achieved
 N = Not Achieved N/A = Not Applicable

ADDITIONAL COMMENTS:

TEACHER SIGNATURE:

_____ **DATE** _____