## HEATING, VENTILATION, AIR CONDITIONING AND REFRIGERATION CERTIFICATE OF ACHIEVEMENT

This certificate is designed to prepare students with the necessary knowledge and skills to obtain entry-level employment in the field of heating, ventilation, air conditioning and refrigeration, installing, maintaining, and repairing such systems.

Code	Title	Units	
Required Courses:			
HVAC/R 001	HVAC/R Fundamentals	4	
HVAC/R 002	Domestic Mechanical Refrigeration	4	
HVAC/R 003	Commercial Mechanical Refrigeration	4	
HVAC/R 004	Electrical Fundamentals for HVAC/R	4	
HVAC/R 005	Commercial Electric for HVAC/R	4	
HVAC/R 006	HVAC/R Air Distribution Systems	4	
HVAC/R 007	Welding for HVAC/R	3	
MATH 102	College Algebra	4	
or TECALC 08	7 Technical Calculations		
Environmental Protection Agency (EPA) Universal Certification (608) <sup>1</sup>			
Total Units		31	

Students must present a copy of their Environmental Protection Agency (EPA) Universal Certification (608) to the Admissions and Records Office.

Code	Title	Units
Recommended Course:		
	encouraged to take this course to augment their air conditioning and heating:	
AUTO 056	Automotive Heating and Air Conditioning	4

Students working for certificates must have a basic knowledge of arithmetic, reading and writing in order to learn and work in the occupations they select.

This is a Gainful Employment Program

## **Program Learning Outcomes**

At the completion of this program, students will be able to:

- a. Select and operate the required test equipment and during troubleshooting and repair operations, with an emphasis on safety in use and accuracy in results.
- b. Analyze, interpret, and trace signal flow diagrams used in signal tracing of complex wiring circuits.
- c. Effectively communicate with and advise customers and co-workers, both written and orally, regarding the progress of and decisions made concerning test and repair procedures.
- d. Pass the practice RSES and NATE exam on the theory and procedures of the HVAC/R technology.