

HEATING, VENTILATION, AIR CONDITIONING AND REFRIGERATION ASSOCIATE OF SCIENCE DEGREE

To graduate with a specialization in Heating, Ventilation, Air Conditioning and Refrigeration, students must complete all requirements for the certificate with a grade of C or better plus the general breadth requirements for the Associate of Science Degree (minimum total = 60 units).

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 087 Technical Calculations	
Environmental Protection Agency (EPA) Universal Certification (608) ¹		
Total Units		31

¹ 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:		
Students are encouraged to take this course to augment their knowledge of air conditioning and heating:		
AUTO 056	Automotive Heating and Air Conditioning	4

To earn an SBVC Associate Degree students must complete one of the following general education patterns:

SBVC GE requirements (<https://www.valleycollege.edu/student-services/counseling/graduation-requirements/>)

CSU GE requirements (<https://www.valleycollege.edu/student-services/counseling/csuge/>)

IGETC requirements (<https://www.valleycollege.edu/student-services/counseling/igetc/>)

Program Learning Outcomes

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

- Select and operate the required test equipment and during troubleshooting and repair operations, with an emphasis on safety in use and accuracy in results.
- Analyze, interpret, and trace signal flow diagrams used in signal tracing of complex wiring circuits.

- 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.
- Pass the practice RSES and NATE exam on the theory and procedures of the HVAC/R technology.