

Heating, Ventilation, Air Conditioning, and Refrigeration

This program is offered at **Bakersfield, Fresno, Hesperia, Modesto, Rancho Cucamonga, and Visalia.**

Program Description

This 60 school week program covers the theories of heating, refrigeration, air-conditioning and electricity. Successful students will learn the proper procedures for installation, operation, maintenance and repair of both residential and light commercial air conditioning and commercial refrigeration equipment and systems. The Bakersfield campus program includes Environmental Protection Agency (EPA) certification, the national Air-conditioning and Refrigeration Institute and the Gas Appliance Manufacturers Association (ARI/GAMA) national Industry Competency Examinations (ICE) for entry-level residential and light-commercial air conditioning and commercial refrigeration technicians. The Fresno campus offers EPA certification and the HVAC Excellence Certifications in Electricity and Air Conditioning.

Program Student Learning Outcomes

Upon completion of this program, the graduate will be able to:

1. Discuss theories of heating, refrigeration, and air conditioning and relate these concepts to practical applications.
2. Apply proper procedures for the installation, operation, maintenance and repair of both residential and light air conditioning commercial refrigeration equipment and systems.
3. Demonstrate requisite mastery to apply for and obtain certifications from organizations such as the Environmental Protection Agency (EPA), the national Air-conditioning and Refrigeration Institute and the Gas Appliance Manufacturers Association (ARI/GAMA), the national Industry Competency Examinations (ICE), and the HVAC Excellence Certifications.
4. Create documents and reports using word processing software.
5. Apply advanced electrical concepts and critical thinking skills to interpret and draft schematic wiring diagrams, and perform system diagnostics and interpret results.
6. Relate and apply concepts of communication, reasoning, critical analysis, ethical behavior and appropriate interpersonal interaction to situations in his or her career and personal life.
7. Demonstrate the social skills, professional appearance, attitudes, and behavior that employers expect of all *SJVC* graduates.



Admission Requirements

- Valid California driver license
- No DUI convictions for the past 3 years

The following courses are required to obtain a degree in this field.

Course ID	Course Name	Credit Units
AC 100	Basic Air Conditioning Theory and Applications	5.0
AC 302	Intermediate Air Conditioning	2.0
AC 400	Advanced Air Conditioning	2.0
EC 100	Basic Electricity Theory and Applications	5.0
EC 200	Intermediate Electricity 1	5.0
EC 302	Intermediate Electricity 2	3.0
EC 400	Advanced Electricity	2.0
ENG 121	Composition and Reading – Part A	3.0
ENG 122	Composition and Reading – Part B	3.0
MTH 121	College Algebra – Part A	3.0
MTH 122	College Algebra – Part B	3.0
NSC 1	Introduction to Natural Sciences	3.0
PHIL 1C	Ethics	3.0
PSY 1	General Psychology	3.0
RF 100	Basic Refrigeration Theory and Applications	5.0
RF 200	Intermediate Refrigeration 1	2.0

RF 302	Intermediate Refrigeration 2	5.0
RF 400*	Advanced Refrigeration	2.0
SOC 1	Introduction to Sociology	3.0
A.S. Degree Program Total		62.0

*This course satisfies the CSS100 graduation requirement.
For a description of the courses listed above, please see Section 8.

