

# Heating, Ventilation, Air Conditioning, and Refrigeration

PHOENIX CAMPUS  
CERTIFICATE OF ACHIEVEMENT/  
ASSOCIATE OF SCIENCE DEGREE

## About The Campus

The Carrington College Phoenix campus shares space with another accredited institution. The two colleges share a 120,000 square foot facility. Carrington College students have access to 34,313 total square feet (not including shared uses) of the Student Success Center, computer labs, cafeteria and two student lounges.

The facility provides students with a simulation retail pharmacy laboratory. The campus also has lecture classrooms with ceiling-mounted LCD projectors; a learning laboratory; science labs; and a medical library equipped with reference materials, textbooks and journals. The Carrington library website offers online resources and professional organization information.

## About This Program

Carrington's Heating, Ventilation, Air Conditioning, and Refrigeration<sup>1</sup> program is approximately 40 weeks in length (certificate) or 64 weeks in length (degree) and prepares students to work in the heating and cooling industry. Training focuses on theories of heating, refrigeration, and air conditioning. Students study the operation, maintenance, and repair of residential and commercial equipment.

The program culminates in a Certificate of Achievement or an Associate of Science degree (online<sup>2</sup>) in Heating, Ventilation, Air Conditioning, and Refrigeration.

## Careers in Heating, Ventilation, Air Conditioning, and Refrigeration

Graduates of Carrington College's Heating, Ventilation, Air Conditioning, and Refrigeration program will be prepared to work in a variety of settings as:

- HVAC Mechanic (Heating, Ventilation, Air Conditioning Mechanic)
- HVAC Installer (Heating, Ventilation, Air Conditioning Installer)
- HVAC / R Technician (Heating, Ventilation, Air Conditioning / Refrigeration Technician)
- Refrigeration Technician (Refrigeration Tech)
- Transportation Refrigeration Technician

<sup>1</sup> Applicants for jobs in the electrical technology field may be subject to pre-employment screenings such as, but not limited to, criminal background checks, drug and/or alcohol testing, physical and/or psychological examinations and credit check.

<sup>2</sup> Degree completion courses are provided in an online format and the degree is awarded from the Phoenix campus.

## Knowledge and Skills

Upon completion of the Heating, Ventilation, Air Conditioning, and Refrigeration program, graduates will be able to:

- Discuss theories of heating, refrigeration, and air conditioning and relate these concepts to practical applications.
- Apply proper procedures for the installation, operation, maintenance and repair of both residential and light commercial heating, ventilation, air conditioning, and refrigeration equipment and systems.
- Demonstrate proper usage of the basic tools of the trade.
- Demonstrate requisite mastery to apply for and obtain the EPA 608 certification from the Environmental Protection Agency.
- Create effective reports and documents, electronically and in writing.
- Apply advanced electrical concepts and critical thinking skills to interpret and draft schematic wiring diagrams, and perform system diagnostics and interpret results.
- 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.
- Demonstrate the social skills, professional appearance, attitudes, and behavior that employers expect of all Carrington College graduates.
- Adhere to national, state, and local safety practices used by service technicians working on HVAC-R systems.



Visit [Carrington.edu](http://Carrington.edu) or call:  
**602-427-0722**

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## Heating, Ventilation, Air Conditioning, and Refrigeration Certificate of Achievement Program Requirements

Technical Courses		Lecture Hours	Lab Hours	Practical Hours	Semester Credit Hours
HVACR 100	Theory and Applications of Air Conditioning	60	30	0	5
HVACR 101	Theory and Applications of Refrigeration	60	30	0	5
HVACR 102	Theory and Applications of Electricity	120	60	0	10
HVACR 103	Advanced Air Conditioning	60	30	0	5
HVACR 104	Advanced Refrigeration	60	30	0	5
HVACR 105	Advanced Electricity	60	30	0	5
HVACR 106	Air Distribution Systems	60	30	0	5
<b>Total for Certificate</b>		<b>480</b>	<b>240</b>	<b>0</b>	<b>40</b>

Approximate time to complete certificate program: 40 weeks (not including breaks)

## Heating, Ventilation, Air Conditioning, and Refrigeration Associate of Science Degree Program Requirements

Graduates of the Heating, Ventilation, Air Conditioning, and Refrigeration Certificate of Achievement program are eligible to complete the Associate of Science degree program via the degree-completion option<sup>1</sup> shown below:

Online General Education Courses		Lecture Hours	Lab Hours	Semester Credit Hours
CLT 100	Computer Literacy	45	0	3
ENG 101	English Writing and Composition	45	0	3
MAT 101	Principles of Mathematics	45	0	3
PSY 101	Introduction to Psychology	45	0	3
HUM 200	Ethics	45	0	3
SOC 101	Introduction to Sociology	45	0	3
SPH 205	Interpersonal Communication	45	0	3
<b>Total for General Education Courses</b>		<b>315</b>	<b>0</b>	<b>21</b>
<b>Total for Certificate</b>		<b>480</b>	<b>240</b>	<b>40</b>
<b>Total for Degree</b>		<b>795</b>	<b>240</b>	<b>61</b>

<sup>1</sup> Degree-completion program length: 24 weeks (not including breaks); Combined certificate and degree-completion option length: 64 weeks (not including breaks).

<sup>2</sup> Degree completion courses are provided in an online format and the degree is awarded from the Phoenix campus.

### General Education Coursework

Students in Carrington College's certificate programs complete technical coursework. In our degree programs, students also complete a broad base of online general education courses focusing on:

- English writing and composition
- Computer literacy
- Mathematics
- Social sciences

### Technical Coursework

Carrington College uses technologies and equipment to support the learning process such as industry-standard equipment and software.

Carrington's academic catalog, available at [carrington.edu/carrington-college/catalog](http://carrington.edu/carrington-college/catalog), provides the most current and detailed program information, including admission and graduation requirements.

### Accreditation & Disclosures

Carrington College is accredited by the Accrediting Commission for Community and Junior Colleges, Western Association of Schools and Colleges (ACCJC/WASC), 10 Commercial Blvd., Suite 204, Novato, CA 94949, 415-506-0234, an institutional accrediting body recognized by the Council for Higher Education Accreditation and the U.S. Department of Education. Additional information about accreditation, including the filing of complaints against member institutions, can be found at [accjc.org](http://accjc.org).

For comprehensive information on Carrington's accreditation, licenses and approvals, visit [carrington.edu/accreditation](http://carrington.edu/accreditation).

Visit [carrington.edu/student-consumer-info/](http://carrington.edu/student-consumer-info/) for important information on program outcomes.

Program availability varies by location. Carrington College reserves the right to update information as it becomes available. For the most updated information, visit [carrington.edu](http://carrington.edu).

### Phoenix Campus

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