

HVAC, RESIDENTIAL AIR CONDITIONING TECHNOLOGY, CERTIFICATE OF TECHNOLOGY



Program Information

The heating, ventilating, air conditioning and refrigeration (HVACR) industry continues to advance technologically, especially in the areas of computerization and sophisticated control systems. Thus, an upward trend is emerging in the changing skill sets required for successful service technicians. If you're passionate about progressive technology and are interested in a satisfying high-demand career based on skill, then the San Jacinto College air conditioning technology program is right for you.

The San Jacinto College Air Conditioning Technology (HVACR) program:

- Is designed to provide students with the necessary skills required to become a state-licensed independent business owner/contractor, or for employment in the industry as a technician in residential, commercial, and/or industrial air conditioning, refrigeration, and heating; and
- Is made up of a curriculum that provides the basic preparation for entry-level jobs in the fields of air conditioning, refrigeration, and heating with initial focus on troubleshooting and service. As students advance through the program, they will learn related topics of indoor air quality, load calculation, system design, and industry code standards.

Additional Information

The Fast Track to HVACR program allows students to complete an Occupational Certificate in just 16 weeks – one semester.

Upon completion of each certificate, students may become registered with the state by registering with the Texas Department of Licensing and Regulation (TDLR).

Career Opportunities

Graduates of the Air Conditioning Technology program will enter a high demand field with excellent wage-earning potential. Presently, industry

advisors say the demand for technicians has a 10-year backlog, and a 21 percent growth rate, faster than the average for all occupations.

Graduates of the San Jacinto College Air Conditioning Technology program have the opportunity to work as:

- Residential/commercial technicians,
- Industrial or maintenance technicians,
- Independent business owners or contractors, and
- Refrigeration technicians.

Earning Potential

Heating and air conditioning mechanic and installer. \$50,673¹

¹ Source: texaswages.com (<http://texaswages.com>), median salary Gulf Coast region, 2019

For more information, students may contact North campus for Commercial HVACR at 281-998-6150, x7264 or South campus for Residential HVACR at 281-998-6150, x3587.

Campuses

North Campus

South Campus

Information

The Commercial Air Conditioning program is offered at the San Jacinto College North campus. The Residential Air Conditioning program is offered at the San Jacinto College South campus. Both programs offer an Occupational Certificate, a Certificate of Technology, and an Associate of Applied Science (AAS) degree. The North campus also offers the Level 2 Certificate. All courses in each certificate apply to the commercial or residential AAS.

Certificate of Technology

The Residential Air Conditioning Technology Certificate of Technology builds on the Residential Occupational Certificate to provide students with more advanced residential and light commercial Heating Ventilation Air Conditioning and Refrigeration (HVAC/R) knowledge, skills, and abilities in electrical and mechanical controls and systems, refrigeration, installation, and customer service. Graduates with this award can seek entry-level employment as air conditioning and refrigeration installers, HVAC/R salespersons, service technicians, and/or air conditioning contractors. All courses on this certificate apply to the Associate of Applied Science (AAS) degree.

Admission

No admission requirements.

Job entry requirements:

For students in this course who may have a criminal background, please be advised that your criminal history could keep you from being licensed by the state of Texas. If you have a question about your background and licensure, please speak with your faculty member or Department Chair. Reference Texas House Bill 1508.

Plan of Study

South Campus

4AIRC-R

First Term		Credits
HART 1401	Basic Electricity for HVAC	4
HART 1407	Refrigeration Principles	4
HART 1441	Residential Air Conditioning	4
HART 1445	Gas and Electrical Heating	4
Credits		16
Second Term		
HART 2331	Advanced Electricity for HVAC	3
HART 2434	Advanced Air Conditioning Controls	4
HART 2442	Commercial Refrigeration	4
EECT 1300	Technical Customer Service	3
Approved Elective (p. 2)		3
Credits		17
Summer Year One Term		
HART 2368 or HART 2338	Practicum (or Field Experience) - HVAC/R Technology/Technician or Air Conditioning Installation and Startup	3
Credits		3
Total Credits		36

Capstone Experience: HART 2368 Practicum (or Field Experience)
- HVAC/R Technology/Technician or HART 2338 Air Conditioning
Installation and Startup

Approved Electives

Code	Title	Credits
HART 2301	Air Conditioning and Refrigeration Codes	3
HART 2336	Air Conditioning Troubleshooting	3
HART 2345	Residential A/C System Design	3
HART 2349	Heat Pumps	3