

# 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 residential and commercial air conditioning, refrigeration, and heating with initial focus on installation, 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, Air Conditioning, and Refrigeration Mechanic and Installer: \$49,087<sup>1</sup>

<sup>1</sup> Source: [texaswages.com](http://texaswages.com) (<http://texaswages.com>), median salary Gulf Coast region, 2021

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

## Campuses

North Campus

South Campus

## Information

The Air Conditioning Technology program is offered at the San Jacinto College South campus and the North 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. The Air Conditioning Technology program focuses on residential and commercial air conditioning as well as commercial refrigeration. All courses in each certificate apply to the AAS degrees.

Students enrolling into San Jacinto College programs with external learning experiences (i.e., clinical, practicum, externship, cooperative, etc.) will be required to comply with the immunization requirements and policies of the clinical/external learning sites to engage in all clinical/external learning experiences. Vaccination requirements at clinical/external learning sites are implemented pursuant to the independent authority of such facilities and are not mandated by San Jacinto College. Failure to meet the immunization requirements mandated by clinical/external learning sites may limit a student's ability to complete the program and/or may delay the student's graduation date. San Jacinto College does not process exemptions, and students should address potential vaccination exemptions directly with the clinical/external learning site.

## Certificate of Technology

The Air Conditioning Technology Certificate of Technology builds on the Air Conditioning Technology Occupational Certificate to provide students with more advanced residential and light commercial Heating, Ventilation, Air Conditioning and Refrigeration (HVACR) 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, HVACR 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:

In accordance with Texas House Bill 1508, the College informs all students in this program who may have a criminal background that a criminal history could keep graduates from being licensed by the state of Texas. Students with any questions about their background and licensure may speak with the Department Chair.

## Plan of Study

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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
<b>Credits</b>		<b>16</b>
Second Term		
HART 2331	Advanced Electricity for HVAC	3
HART 2334	Advanced A/C Controls	3
HART 2442	Commercial Refrigeration	4
EECT 1300	Technical Customer Service	3
or HART 2343	or Industrial Air Conditioning	
or HART 2349	or Heat Pumps	
or HART 2357	or Specialized Commercial Refrigeration	
Select one of the following:		3
HART 2301	Air Conditioning and Refrigeration Codes	
HART 2336	Air Conditioning Troubleshooting	
HART 2345	Residential A/C System Design	
HART 2349	Heat Pumps	
HART 2302	Commercial Air Conditioning System Design	
<b>Credits</b>		<b>16</b>
Summer Year One Term		
HART 2368	Practicum (or Field Experience) - HVAC/R	3
or HART 2338	Technology/Technician or Air Conditioning Installation and Startup	
<b>Credits</b>		<b>3</b>
<b>Total Credits</b>		<b>35</b>

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