



Principles of Construction

Level 1

HVAC Technology I

Level 2

HVAC Technology II

Level 3

Practicum in Construction Technology

Level 4

HIGH SCHOOL/INDUSTRY CERTIFICATION	CERTIFICATE / LICENSE*	ASSOCIATE'S DEGREE	BACHELOR'S DEGREE	MASTER'S/DOCTORAL PROFESSIONAL DEGREE
Refrigerant Handling (EPA 608)	Residential HVAC Design for Quality Installation	Business Administration and Management, General	Business Administration and Management, General	Business Administration and Management, General
	Certified Cost Technician	Mechanical Engineering	Mechanical Engineering	Mechanical Engineering
	Precision Sheet Metal Operator Certification	Heating, Ventilation, Air Conditioning and Refrigeration Engineering Technology/Technician	Construction Engineering Technology/Technician	Construction Engineering
	Certified Ventilation System Inspector	Business/Commerce, General	Business/Commerce, General	Business/Commerce, General

Occupations	Median Wage	Annual Openings	% Growth
Heating, Air Conditioning, and Refrigeration Mechanics	\$41,808	3,356	26%
Sheet Metal Workers	\$37,419	1,479	17%
Cost Estimators	\$63,939	2,239	21%

WORK BASED LEARNING AND EXPANDED LEARNING OPPORTUNITIES	
Exploration Activities:	Work Based Learning Activities:
SkillsUSA Industry Tours Guest Speakers	Participate in internships

Additional industry-based certification information is available on the TEA CTE website. For more information on postsecondary options for this program of study, visit TXCTE.org.

The HVAC and Sheet Metal program of study explores the occupations and educational opportunities associated with installing, serving, or repairing heating and air conditioning systems and also the fabrication, assembly, installation, and repair of sheet metal products and equipment, such as ducts, control boxes, drainpipes, and furnace casings. This program of study may also include exploration into preparing cost estimates for certain construction projects involving heating and air conditioning and sheet metal.



The Architecture and Construction Career Cluster focuses on designing, planning, managing, building, and maintaining the built environment. Principles of Architecture provides an overview to the various fields of architecture, interior design, and construction management.

Successful completion of the HVAC and Sheet Metal program of study will fulfill requirements of the Business and Industry Endorsement. Revised - July 2020

COURSE INFORMATION: HVAC AND SHEET METAL

COURSE NAME	SERVICE ID	PREREQUISITES (PREQ)	Grade
Principles of Construction	13004220 (1 credit)	None	9-10
Heating, Ventilation, and Air Conditioning (HVAC) and Refrigeration Technology I	13005800 (1 credit)	None	10-12
Heating, Ventilation, and Air Conditioning (HVAC) and Refrigeration Technology II	13005900 (2 credits)	PREQ: HVAC Technology I	11-12
Practicum in Construction Technology	13005250 (2 credits)	PREQ: Construction Technology II; Building Maintenance Technology II; Electrical Technology II; HVAC II or Plumbing Technology I	12

FOR ADDITIONAL INFORMATION ON THE HVAC AND SHEET METAL PROGRAM OF STUDY,
PLEASE CONTACT YOUR LOCAL COUNSELOR OR VISIT

[HTTPS://AMTECH.AMAISD.ORG](https://amtech.amaisd.org)



HVAC TECHNOLOGY PROGRAM OF STUDY

Principles of Construction

Grade Placement: 9–10, Credit: 1

Prerequisite: None.

Principles of Construction is intended to provide an introduction and lay a solid foundation for those students entering the construction or craft skilled areas. The course provides a strong knowledge of construction safety, construction mathematics, and common hand and power tools. This course also provides communication and occupation skills to assist the student in obtaining and maintaining employment.

Course #0154

CHS, PDHS

Heating, Ventilation, and Air Conditioning (HVAC) and Refrigeration Technology I

Grade Placement: 10–12, Credit: 1

Prerequisite: None.

In Heating, Ventilation, and Air Conditioning and Refrigeration Technology I, students will gain knowledge and skills needed to enter the industry as technicians in the HVAC and refrigeration industry or building maintenance industry, prepare for a postsecondary degree in a specified field of construction management, or pursue an approved apprenticeship program. Students will acquire knowledge and skills in safety, principles of HVAC theory, use of tools, codes, and installation of HVAC and refrigeration equipment.

Course #0168c

AMTECH

Heating, Ventilation, and Air Conditioning (HVAC) and Refrigeration Technology II (future)

Grade Placement: 11–12, Credits: 2

Prerequisite: HVAC Technology I.

In Heating, Ventilation, and Air Conditioning (HVAC) and Refrigeration Technology II, students will gain advanced knowledge and skills needed to enter the industry as HVAC and refrigeration technicians or building maintenance technicians or supervisors, prepare for a postsecondary degree in a specified field of construction or construction management, or pursue an approved apprenticeship program. Students will acquire knowledge and skills in safety, electrical theory, use of tools, codes, installation of commercial HVAC equipment, heat pumps, troubleshooting techniques, various duct systems, and maintenance practices.

Course #0169c

AMTECH

Practicum in Construction Technology (future offering)

Grade Placement: 12, Credits: 2

Prerequisites: Construction Technology II; Building Maintenance Technology II; Electrical Technology II; HVAC Technology II; or Plumbing Technology I.

In Practicum in Construction Technology, students will be challenged with the application of knowledge and skills gained in previous construction-related coursework. In many cases students will be allowed to work at a job (paid or unpaid) outside of school or be involved in local projects the school has approved for this class.

Course #0172

AMTECH

HVAC I, II and Practicum in Construction Technology will move to AmTech in 2022.