



Principles of Construction

Level 1

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

Level 2

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

Level 3

Practicum in Construction

Technology
Practicum in Entrepreneurship
Career Preparation I

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
OSHA 30 Hour Construction	Certified Cost Technician	Mechanical Engineering	Mechanical Engineering	Mechanical Engineering
NCCER HVAC, Level 1	Precision Sheet Metal Operator Certification	Heating, Ventilation, Air Conditioning and Refrigeration Engineering Technology/ Technician	Construction Engineering Technology/ Technician	Construction Engineering
NCCER Sheet Metal, Level 1	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:
Shadow an HVAC worker or cost estimator SkillsUSA	Intern with a company that works with HVAC and/or sheet metal

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

COURSE NAME	SERVICE ID	PREREQUISITES (PREQ) COREQUISITES (CREQ)	Grade
Principles of Construction	13004220 (1 credit)	None	9-12
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: Heating, Ventilation, and Air Conditioning (HVAC) and Refrigeration Technology I	11-12
Sheet Metal	N1300430 (1 credit)	None	11-12
Practicum in Construction Technology	13005250 (2 credits) 13005255 (3 credits) 13005260 (2 credits) 13005265 (3 credits)	PREQ: Construction Technology II; Building Maintenance Technology II; Electrical Technology II; Heating, Ventilation, and Air Conditioning (HVAC) and Refrigeration Technology II; Plumbing Technology I; or Mill and Cabinetmaking Technology	12
Practicum in Entrepreneurship	N1303425 (2 credits)	None	11-12
Career Preparation I	12701300 (2 credits) 12701305 (3 credits)	None	11-12

FOR ADDITIONAL INFORMATION ON THE ARCHITECTURE AND CONSTRUCTION CAREER CLUSTER, PLEASE CONTACT:

CTE@tea.texas.gov

<https://tea.texas.gov/cte>

(District) offers career and technical education programs in (types of programs offered). Admission to these programs is based on (admission standards). It is the policy of (District) not to discriminate on the basis of race, color, national origin, sex or handicap in its vocational programs, services or activities as required by Title VI of the Civil Rights Act of 1964, as amended; Title IX of the Education Amendments of 1972; and Section 504 of the Rehabilitation Act of 1973, as amended. It is the policy of (District) not to discriminate on the basis of race, color, national origin, sex, handicap, or age in its employment practices as required by Title VI of the Civil Rights Act of 1964, as amended; Title IX of the Education Amendments of 1972; the Age Discrimination Act of 1975, as amended; and Section 504 of the Rehabilitation Act of 1973, as amended. (District) will take steps to assure that lack of English language skills will not be a barrier to admission and participation in all educational and vocational programs. For information about your rights or grievance procedures, contact the Title IX Coordinator at (physical address of Coordinator) (email address of Title IX Coordinator), (phone number of Title IX Coordinator), and the Section 504 Coordinator at (physical address of Coordinator), (email address of Section 504 Coordinator), (phone number of Section 504 Coordinator)