



Architecture and Construction Career Cluster

The Architecture and Construction career cluster focuses on designing, planning, managing, building, and maintaining the built environment. This career cluster includes occupations ranging from architect, carpenter, and construction manager to electrician, plumber and heating, air conditioning, ventilation, and refrigeration technician.

Program of Study: HVAC (Heating, Ventilation, Air Conditioning, and Refrigeration)

The HVAC program of study focuses on occupational and educational opportunities associated with installing, servicing, or repairing heating and air conditioning systems. The program of study addresses fabrication, assembly, installation, and repair of sheet metal products and equipment, such as ducts, control boxes, drainpipes, and furnace casings.

Secondary Courses for High School Credit

9th Grade	Principles of Construction
10th Grade	- HVAC 1 - Electrical Technology 1
11th Grade	HVAC 2
12th Grade	Practicum in Construction Technology
Optional Electives	- Entrepreneurship - Career Prep 1

Internship and Practicum Opportunities

Students have the opportunity to gain hands-on experience at Keller's Center for Advanced Learning (KCAL).

Career and Technical Student Organization (CTSO)

TSA

Technology Student Association

SkillsUSA

Workforce Development Organization

FCCLA

Family Career & Community Leaders of America

Career & Technical Student Organizations (CTSOs) are student-led organizations that build leadership, career skills, and real-world experience through competitions, networking, and hands-on learning.

Aligned Industry-Based Certifications

- NCCER Core (Construction)
- NCCER Electrical Level 1
- NCCER HVACR
- EPA 608 (HVACR)



Example Postsecondary Opportunities

Apprenticeships

- Heating and Conditioning Installer

Associate Degrees

- Heating, Air Conditioning, Ventilation and Refrigeration
- Maintenance Technology
- Construction Site Management
- Property Maintenance
- Sheet Metal Technology/Sheetworking



Bachelor's Degrees

- Construction Engineering
- Construction Management
- Building/Construction Site Management
- Heating, Air Conditioning, Ventilation and Refrigeration Maintenance Technology

Master's, Doctoral, and Professional Degrees

- Construction Engineering
- Construction Management



Example Aligned Occupations

Helpers—Installation, Maintenance, and Repair Workers

Median Wage: \$33,348

Annual Openings: 2,366

10-Year Growth: 22%

Heating, Air Conditioning, and Refrigeration Mechanics and Installers

Median Wage: \$48,722

Annual Openings: 3,719

10-Year Growth: 21%

Construction Managers

Median Wage: \$95,072

Annual Openings: 6,325

10-Year Growth: 24%

HVAC

For more information, visit the KISD Course Guide
<https://tinyurl.com/464uxm25>

