

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, and refrigeration technician.

CFISD Program of Study: Construction

Successful completion of the Carpentry program of study will fulfill requirements of the Business and Industry endorsement.

The Carpentry program of study focuses on occupational and educational opportunities related to constructing, installing, and repairing structures and fixtures made of wood (including frameworks, partitions, joists, studding, rafters, and stairways). The program of study includes installing, dismantling, or moving machinery and heavy equipment according to layout plans, blueprints, or other drawings.



Recommended Course Sequence (credits)(A=advanced)

Students wanting an endorsement in this area must select three (3) or more courses totaling four (4) or more credits with at least one being advanced.

Grade 9	<ul style="list-style-type: none"> Principles of Construction (1) Principles of Manufacturing (1) (related elective, does not count towards endorsement)
Grade 10	<ul style="list-style-type: none"> Construction Technology I (2)
Grade 11	<ul style="list-style-type: none"> Construction Technology II (2) (A) OR Mill and Cabinetmaking Technology (2) (A)
Grade 12	<ul style="list-style-type: none"> Practicum in Construction Technology (2) (A)

Aligned Industry-Based Certifications Offered in CFISD

(course) (CCMR=impacts "career ready" status as outlined by the TEA Accountability System for College, Career or Military Readiness)

- OSHA 10-Hour (Construction Technology I)
- NCCER Carpentry Level I (Construction Technology II) (CCMR)
- NCCER Core (Construction Technology I) (CCMR)
- Additional certs/training via internships

Work-Based Learning and Expanded Learning Opportunities

Work-Based Learning Activities	<ul style="list-style-type: none"> • Intern with a carpenter to practice skills such as measuring materials and assembling structures • Participate in a pre-apprenticeship that includes activities like installing cabinets, drywall, and siding
Expanded Learning Opportunities	<ul style="list-style-type: none"> • Shadow a construction manager to learn more about how construction teams work together to complete projects • Participate in SkillsUSA



AVAILABLE TO STUDENTS AT ALL 12 HIGH SCHOOLS!

- Receive training on industry-standard material, software & equipment.
- Enhance your resume by earning recognized industry-based certifications.
- Get a jump-start by taking advantage of core curriculum dual credit, transferable to 2-yr and 4-yr degrees.

ALL AT A FRACTION OF THE COST!



Example Postsecondary Opportunities

Apprenticeships

- Carpenter

Associate Degrees

- Construction Management
- Construction Engineering Technology
- Building Construction Technology

Bachelor's Degrees

- Construction Engineering
- Construction Science
- Construction Site Management

Master's, Doctoral, and Professional Degrees

- Construction Engineering Technology
- Construction Engineering
- Construction Management
- Project Management



Example Aligned Occupations

Data Source: Texas Wages, Texas Workforce Commission. rev 3/8/2024

Carpenters

Median Wage: \$44,699
Annual Openings: 758
10-Year Growth: 14%

Construction and Building Inspectors

Median Wage: \$61,505
Annual Openings: 1,812
10-Year Growth: 9%

Construction Managers

Median Wage: \$98,294
Annual Openings: 5,403
10-Year Growth: 24%



For more information on this and other CTE programs of study offered in CFISD, visit <https://www.cfisd.net/academics/career-technical-education/programs-of-study>

What's next? For more information on related programs available to continue your studies at Lone Star College, visit <https://www.lonestar.edu/programs-of-study>

