

# 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.

## Program of Study: *Construction Technology*

The Construction Technology program introduces students to core building trades through hands-on projects in carpentry, electrical, plumbing, and safety. Students learn tool use, blueprint reading, and construction math while exploring career paths. Emphasis is placed on real-world skills, teamwork, and industry standards, including OSHA safety practices and green building concepts.

### Secondary Courses for High School Credit

|                              |                                                                                           |
|------------------------------|-------------------------------------------------------------------------------------------|
| <b>9<sup>th</sup> Grade</b>  | <ul style="list-style-type: none"> <li>Principles of Construction</li> </ul>              |
| <b>10<sup>th</sup> Grade</b> | <ul style="list-style-type: none"> <li>Construction Technology 1</li> </ul>               |
| <b>11<sup>th</sup> Grade</b> | <ul style="list-style-type: none"> <li>Construction Technology 2</li> </ul>               |
| <b>12<sup>th</sup> Grade</b> | <ul style="list-style-type: none"> <li>Practicum in Construction Technology</li> </ul>    |
| <b>Optional Electives</b>    | <ul style="list-style-type: none"> <li>Entrepreneurship</li> <li>Career Prep 1</li> </ul> |

### 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 Carpentry Level 1



National Center for  
Construction Education  
and Research



### 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

#### *First-Line Supervisors of Construction Trades and Extraction Workers*

Median Wage: \$64,473

Annual Openings: 9,513

10-Year Growth: 23%

#### *Carpenters*

Median Wage: \$46,272

Annual Openings: 5,623

10-Year Growth: 15%

#### *Construction Managers*

Median Wage: \$95,072

Annual Openings: 6,325

10-Year Growth: 24%

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

