

# Architecture and Construction Career Cluster

Revised—May 2024



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.



## Endorsement: Business & Industry Statewide Program of Study: Architectural Design

The Architectural Drafting and Design program of study focuses on occupational and educational opportunities associated with developing, engineering, and designing building structures and facilities. This program of study includes reading, interpreting, and drawing blueprints for interior and exterior construction projects.



### Secondary Courses for High School Credit

- |                              |  |
|------------------------------|--|
| <b>9<sup>th</sup> Grade</b>  | <input type="checkbox"/> Principles of Architecture (Level 1) <b>OR</b><br><input type="checkbox"/> Principles of Construction (Level 1) |
| <b>10<sup>th</sup> Grade</b> | <input type="checkbox"/> Architectural Design I (Level 2)  |
| <b>11<sup>th</sup> Grade</b> | <input type="checkbox"/> Architectural Design II (Level 3)(KCC)  |
| <b>12<sup>th</sup> Grade</b> | <input type="checkbox"/> Practicum in Architectural Design (Level 4) (KCC)   |

A CTE Completer is a student who completes three or more CTE courses for four or more credits including one Level 3 or 4 (advanced level) CTE course within a program of study will fulfill the requirements of a Business and Industry Endorsement.

### Aligned Industry-Based Certifications

- Autodesk Certified Professional or User in AutoCAD
- Autodesk Certified Professional or User in Autodesk Revit Architecture



### Work-Based Learning and Expanded Learning Opportunities

#### Work-Based Learning Activities

- Intern at an architectural firm to develop CADD drafting and design technology skills
- Shadow a civil engineer to learn more about their day-to-day responsibilities

#### Expanded Learning Opportunities

- Conduct an informational interview with an architect to learn about their role and responsibilities
- Participate in SkillsUSA or TSA

#### NAVIANCE ACCESS

All Killeen ISD students (7<sup>th</sup> – 12<sup>th</sup> graders) should login to their Naviance account through Clever.

Log into Naviance by clicking the Clever logo or link and use the College SuperMatch Tool to find colleges offering degree plans in this field.

<https://clever.com/in/killeenisd>



Killeen ISD does not discriminate on the basis of race, color, national origin, sex, or disability in its programs or activities and provides equal access to the Boy Scouts and other designated youth groups. The following person has been designated to handle inquiries regarding the nondiscrimination policies: Rhea Bell, Title IX Coordinator, 902 N. 10<sup>th</sup> St., Killeen, TX 76541, 254-336-2822, [Rhea.bell@killeenisd.org](mailto:Rhea.bell@killeenisd.org). Further nondiscrimination information can be found at [Notification of Nondiscrimination in Career and Technical Education Programs](#).



### Example Postsecondary Opportunities

#### Apprenticeships

- Drafter

#### Associate Degrees

- CAD/CADD Drafting and/or Design Technology
- Drafting and Design Technology
- Surveying Technology/Surveying
- Architectural Drafting and Architectural CAD/CADD

#### Bachelor's Degrees

- Civil Engineering
- Construction Engineering
- Surveying Engineering
- Drafting and Design Technology

#### Master's, Doctoral, and Professional Degrees

- Civil Engineering
- Geographic Information Science and Cartography
- Construction Engineering Technology



### Example Aligned Occupations

#### Architectural and Civil Drafters

Median Wage: \$57,424  
Annual Openings: 1,366  
10-Year Growth: 15%

#### Architects

Median Wage: \$80,903  
Annual Openings: 966  
10-Year Growth: 18%

#### Construction Managers

Median Wage: \$95,072  
Annual Openings: 6,325  
10-Year Growth: 24%

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



For more information visit:

<https://tea.texas.gov/academics/college-career-and-military-prep/career-and-technical-education/programs-of-study-additional-resources>

# Architecture and Construction Career Cluster

Endorsement: *Business & Industry*

Statewide Program of Study: *Architectural Design*



## Course Information

IT IS IN THE BEST INTEREST OF THE STUDENT TO TAKE ALL COURSES BELOW IN EACH GRADE

Level	Grade	Course	Prerequisites   Corequisites	Career Clusters
Level 1	9 <sup>th</sup> Grade	<b>Principles of Architecture*</b> 13004210 (1 credit)	Prerequisites: None Corequisites: None Recommend Prerequisites: None Recommended Corequisites: None	
		<b>Principles of Construction*</b> 13004220 (1 credit)	Prerequisites: None Corequisites: None Recommend Prerequisites: None Recommended Corequisites: None	
Level 2	10 <sup>th</sup> Grade	<b>Architectural Design I</b> 13004600 (1 credit)	Prerequisites: Algebra I and English I Corequisites: None Recommend Prerequisites: Geometry, Principles of Architecture, and Principles of Construction Recommended Corequisites: None	
Level 3	11 <sup>th</sup> Grade	<b>Architectural Design II</b> 13004700 (2 credits)	Prerequisites: Architectural Design I or Advanced Interior Design and Geometry Corequisites: None Recommend Prerequisites: Principles of Architecture and Principles of Construction Recommended Corequisites: None	
Level 4	12 <sup>th</sup> Grade	<b>Practicum in Architectural Design</b> First Time Taken: 13004800 (2 credits) Second Time Taken: 13004810 (2 credits)	Prerequisites: Architectural Design II Corequisites: None Recommended Prerequisites: None Recommended Corequisites: None	

\* Indicates course is included in more than one program of study.

## Armed Forces Career Information

- Bridge Crewmember – U.S. Army
- Builder – U.S. Navy
- Engineering Specialist – U.S. Air Force
- Engineering Aid – U.S. Navy
- Geospatial Engineer – U.S. Army
- This is not a comprehensive list.

### Local Armed Forces Recruiter Contact Information:

- Air Force – (254) 247-8992
- Army – (254) 690-8554
- Army National Guard – (903) 262-6355
- Marines – (254) 690-2626
- Navy – (254) 690-2096

See your school counselor to connect with a military recruiter for career counseling and to take the ASVAB in high school.