



If you dream of designing, planning, managing, building or maintaining the structures where we live, work and play, then the Architecture and Construction Career Cluster is for you.

Sample Occupations:

- ◆ Flight Engineer
- ◆ Construction Manager
- ◆ Architect
- ◆ Civil Engineer
- ◆ Electronic Drafter
- ◆ Carpenter
- ◆ Crane and Tower Operator
- ◆ Electrician
- ◆ Engineering Technician
- ◆ HVAC Technician
- ◆ Roofers
- ◆ Insulation Worker
- ◆ Painters
- ◆ Plumbers

3 Career Pathways within the cluster:

1. Construction
2. Design/Pre-construction
3. Maintenance/Operation

10 Fast-Growing Careers

Occupation	% Growth (2006-2016)	New Jobs (2006-2016)
Env. Science Technicians	28%	240
Environmental Scientists	26%	420
Environmental Specialists	26%	420
Environmental Engineers	25%	300
Surveyors	24%	330
Geoscientists	22%	150
Interior Designers	20%	330
Cost Estimators	19%	860
Civil Engineers	18%	140
Architects	18%	480
Construction Managers	16%	1,520





Occupation	Average Wage	Entry Wage	Experienced Wage
Engineering Manager	\$63.26	\$42.64	\$73.57
Geoscientists	\$59.48	\$31.01	\$73.72
Construction Manager	\$34.10	\$20.81	\$40.75
Electronics Engineers	\$41.98	\$28.81	\$48.86
Electrical Engineers	\$44.61	\$29.35	\$52.23
Architect	\$35.21	\$20.14	\$42.75
Civil Engineers	\$40.41	\$24.54	\$48.34
Environmental Engineer	\$34.55	\$19.28	\$42.19
Mechanical Engineer	\$24.97	\$16.83	\$29.04
Sales Rep., Wholesale & Manufacturing	\$35.46	\$18.64	\$43.80

Architectural Q and A

1. The Texas Association of Builders represents how many jobs in Texas.
2. What are some good ways to gain knowledge about Architecture and Construction?
3. Of the 3 career pathways within the Architecture and Construction cluster, which pathway has the most occupations?



Architecture and Construction

- ◆ Principles of Architecture and Construction
- ◆ Architectural Design
- ◆ Construction Technology
- ◆ Advanced Architectural Design
- ◆ Advanced Construction Technology



ALIEF CTE HIGH SCHOOL COURSES



Required Knowledge and Skills

Be prepared to take a broad selection of subjects to get ready for success in Architecture and Construction. Even if you know where your career is headed, it's important to take a variety of courses in high school. That's because Architecture & Construction is a generalist's field involving teamwork and interaction with all sorts of people. Although you can take specialized courses in specific skills such as drafting, don't think your academic classes aren't important.

Communication Is Critical

Those who want to work in Architecture & Construction need to be able to communicate with all different types of people, including contractors, clients, laborers, inspectors, and designers. That means having a strong foundation in English—reading, writing, speaking, and listening—is essential. You have to demonstrate good communication skills.

If you're competing with someone else for a job, the person who is better at writing and speaking will often be selected. Speaking a foreign language is also a plus in this cluster. Alief offers credit opportunities in five languages.

Master Science and Math

Architecture & Construction also requires strong math and science skills. Understanding the physics of how a building is built and knowing the algebra and geometry used for the thousands of specifications and measurements that go into a complex building helps you get ahead in the construction business. You should take rigorous math as well as art courses.

Alief Architecture and Construction Students

