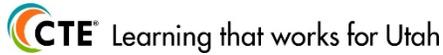


# Utah Career and Technical Education Career Pathway

## 2019-2020 School Year



**CTSO Information**  
 Career and Technical Student Organizations (CTSO) align with the national Career Clusters® and the Utah CTE Career Pathways.

TSA is the CTSO for students in the CAD Architectural Design Career Pathway. TSA fosters personal growth, leadership, and opportunities in science, technology, engineering, and mathematics (STEM).

**Workforce Trends**  
 Computer Aided Design (CAD) technologies have allowed architects to do more work without the help of drafters, making it easier to share the work with engineers, contractors, and clients.

According to the U.S. Department of Labor, employment of architects is projected to grow 4 percent through the year 2026. In Utah, projected growth is 2.6 percent.

### Career Cluster: Architecture & Construction

#### Career Pathway: CAD Architectural Design

CORE CODE	FOUNDATION COURSES (required)	CREDITS	
38.01.00.00.041	<a href="#">CAD Architectural Design 1</a>	.50	1.50 credits
38.01.00.00.042	<a href="#">CAD Architectural Design 2</a>	.50	
38.01.00.00.043	<a href="#">CAD Architectural Design 3</a>	.50	
<b>Or choose the following course:</b>			
38.01.00.00.330	<a href="#">PLTW Civil Engineering and Architecture</a>	1.00	
ELECTIVE COURSES			
38.03.00.00.030	<a href="#">Construction Technology</a>	.50	1.00 credit
38.03.00.00.010	<a href="#">Engineering Technology</a>	.50	
38.01.00.00.211	<a href="#">Physics with Technology</a>	1.00	
41.00.00.00.050	<a href="#">CTE Internship</a>	.50	
41.00.00.00.030	<a href="#">Workplace Skills</a>	.50	
<b>2.50 credits for completion</b>			

Foundation courses taken beyond the required credits can be used as elective credit.

**Career and Technical Education provides all students access to high-quality, rigorous career-focused programs that result in attainment of credentials with labor market value.**

**CAD Architectural Design is:**

- > High-skill
- > High-wage
- > In-demand

**Sample Occupations Requiring:**

**High School Diploma**  
 > Surveying and Mapping Tech

**Certificate**  
 > N/A

**Assoc. or Technical Degree**  
 > Architectural Drafter  
 > Civil Drafter

**Baccalaureate Degree**  
 > Architect  
 > Architectural and Engineering Managers  
 > Career and Technical Education Teacher  
 > Civil Engineer  
 > Landscape Architect  
 > Secondary Education Teacher  
 > Surveyor

**Graduate or Prof. Degree**  
 > Architect

**Student Testimonial**

“As a freshman in high school, I was unsure what career path I should focus on. Because of this, I ended up taking a wide variety of courses and finding a passion in designing house plans using the computer. I have chosen to focus on structural and architectural design technology. I believe I will find pride in being part of the building process and seeing my designs go from ideas on paper to a beautiful, custom finished product in my community.”

Jaxon Schiess

### HIGH SCHOOL TO POSTSECONDARY EDUCATION AND TRAINING

There are a number of options for education and training beyond high school, depending on your career goals.

12th Grade	1-Year Certificate	2-Year Associate or Technical Degree	4-Year Bachelor's Degree	More Graduate or Prof. Degree
Certificates are awarded upon the successful completion of a brief course of study, usually one year or less. Upon completion of a course of study, a certificate does not require any further action to retain.  In high school a variety of certificates can be earned.		An academic degree is an award for the completion of a program or course of study over multiple years at postsecondary education institutions.  In 2016-2017, 74 percent of secondary students who concentrated in a CTE Career Pathway placed in postsecondary education, advanced training, military service or employment (October 1-December 31).		

**Utah Business and Industry Facts**

From commercial to residential, Utah is home to more than 900 architects and building designers.

According to the Utah Department of Workforce Services, business expansion will provide the majority of job openings in the coming decade.

In Utah, an architect must be licensed.

**UtahFutures: College and Career Planning**

Visit [UtahFutures.org](http://UtahFutures.org) to explore occupations, search salary projections, access labor market information, investigate training options, and to create a plan.

Visit [UtahCTE.org](http://UtahCTE.org) to access high-quality, rigorous career-focused programs that result in attainment of credentials with labor market value.

**CTE Credentials of Value**

In 2017-2018, 112,867 CTE Skill Certifications were awarded to secondary students and 19,189 third-party certifications were earned by secondary students.

In 2017-2018, the graduation rate for students who concentrated in a CTE Career Pathway was 95 percent, compared to Utah's statewide graduation rate of 87 percent.