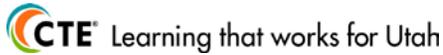


# Utah Career and Technical Education Career Pathway

## 2018-2019 School Year



<p><b>CTSO Information</b> Career and Technical Student Organizations (CTSO) align with the national Career Clusters® and the Utah CTE Career Pathways.</p> <p>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).</p> <p><b>Workforce Trends</b> 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.</p> <p>Nationwide, employment of architects is projected to grow 7 percent through the year 2024. In Utah, projected growth is 2.6 percent.</p>	<h3 style="margin: 0;">Career Cluster: Architecture &amp; Construction</h3> <h4 style="margin: 0;">Career Pathway: CAD Architectural Design</h4> <table border="1" style="width: 100%; border-collapse: collapse; margin: 10px 0;"> <thead> <tr style="background-color: #00a651; color: white;"> <th style="padding: 5px;">CORE CODE</th> <th style="padding: 5px;">FOUNDATION COURSES (required)</th> <th style="padding: 5px;">CREDITS</th> <th style="padding: 5px;"></th> </tr> </thead> <tbody> <tr> <td style="padding: 2px 5px;">38.01.00.00.041</td> <td style="padding: 2px 5px;">CAD Architectural Design 1 *</td> <td style="padding: 2px 5px;">.50</td> <td rowspan="3" style="text-align: center; vertical-align: middle;">1.50 credits</td> </tr> <tr> <td style="padding: 2px 5px;">38.01.00.00.042</td> <td style="padding: 2px 5px;">CAD Architectural Design 2 *</td> <td style="padding: 2px 5px;">.50</td> </tr> <tr> <td style="padding: 2px 5px;">38.01.00.00.043</td> <td style="padding: 2px 5px;">CAD Architectural Design 3</td> <td style="padding: 2px 5px;">.50</td> </tr> <tr> <td colspan="4" style="padding: 5px; text-align: center;"><i>Or choose the following course:</i></td> </tr> <tr> <td style="padding: 2px 5px;">38.01.00.00.330</td> <td style="padding: 2px 5px;">PLTW Civil Engineering and Architecture</td> <td style="padding: 2px 5px;">1.00</td> <td></td> </tr> <tr style="background-color: #00a651; color: white;"> <th colspan="4" style="padding: 5px;">ELECTIVE COURSES</th> </tr> <tr> <td style="padding: 2px 5px;">38.03.00.00.010</td> <td style="padding: 2px 5px;">Engineering Technology</td> <td style="padding: 2px 5px;">.50</td> <td rowspan="4" style="text-align: center; vertical-align: middle;">1.00 credit</td> </tr> <tr> <td style="padding: 2px 5px;">38.01.00.00.211</td> <td style="padding: 2px 5px;">Physics with Technology</td> <td style="padding: 2px 5px;">1.00</td> </tr> <tr> <td style="padding: 2px 5px;">38.01.00.00.030</td> <td style="padding: 2px 5px;">Construction Technology</td> <td style="padding: 2px 5px;">1.00</td> </tr> <tr> <td style="padding: 2px 5px;">41.00.00.00.030</td> <td style="padding: 2px 5px;">Workplace Skills</td> <td style="padding: 2px 5px;">.50</td> </tr> <tr> <td colspan="4" style="padding: 5px; text-align: center;"><b>2.50 credits for completion</b></td> </tr> </tbody> </table> <p style="font-size: small; margin-top: 5px;">* Course can be taken up to 1.00 credit Foundation courses taken beyond the required credits can be used as elective credit.</p> <p style="text-align: center; margin-top: 10px;"><b>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.</b></p>	CORE CODE	FOUNDATION COURSES (required)	CREDITS		38.01.00.00.041	CAD Architectural Design 1 *	.50	1.50 credits	38.01.00.00.042	CAD Architectural Design 2 *	.50	38.01.00.00.043	CAD Architectural Design 3	.50	<i>Or choose the following course:</i>				38.01.00.00.330	PLTW Civil Engineering and Architecture	1.00		ELECTIVE COURSES				38.03.00.00.010	Engineering Technology	.50	1.00 credit	38.01.00.00.211	Physics with Technology	1.00	38.01.00.00.030	Construction Technology	1.00	41.00.00.00.030	Workplace Skills	.50	<b>2.50 credits for completion</b>				<p><b>CAD Architectural Design is:</b></p> <ul style="list-style-type: none"> <li>&gt; High skill</li> <li>&gt; High wage</li> <li>&gt; High demand</li> </ul> <p><b>Sample Occupations Requiring:</b></p> <p><a href="#">High School Diploma</a> &gt; Surveying and Mapping Tech</p> <p><a href="#">Certificate</a> &gt; N/A</p> <p><a href="#">Assoc. or Technical Degree</a> &gt; Architectural Drafter &gt; Civil Drafter</p> <p><a href="#">Baccalaureate Degree</a> &gt; Architect &gt; Architectural and Engineering Managers &gt; Career and Technical Education Teacher &gt; Civil Engineer &gt; Landscape Architect &gt; Secondary Education Teacher &gt; Surveyor</p> <p><a href="#">Graduate or Prof. Degree</a> &gt; Architect</p>
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<p><b>Student Testimonial</b></p> <p>“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.”</p> <p style="text-align: right; font-size: small;">Jaxon Schiess</p>	<h3 style="margin: 0;">HIGH SCHOOL TO POSTSECONDARY EDUCATION AND TRAINING</h3> <p style="margin: 0;">There are a number of options for education and training beyond high school, depending on your career goals.</p> <table border="1" style="width: 100%; border-collapse: collapse; margin: 10px 0;"> <tr> <td style="width: 15%; background-color: #00a651; color: white; text-align: center; padding: 10px;"><b>12th Grade</b></td> <td style="width: 15%; background-color: #ff9900; color: white; text-align: center; padding: 10px;"><b>1-Year Certificate</b></td> <td style="width: 15%; background-color: #99cc33; color: white; text-align: center; padding: 10px;"><b>2-Year Associate or Technical Degree</b></td> <td style="width: 15%; background-color: #ffcc00; color: white; text-align: center; padding: 10px;"><b>4-Year Bachelor's Degree</b></td> <td style="width: 15%; background-color: #666666; color: white; text-align: center; padding: 10px;"><b>More Graduate or Prof. Degree</b></td> </tr> </table> <div style="display: flex; justify-content: space-between;"> <div style="width: 45%; padding: 5px;"> <p>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.</p> <p>In high school a variety of certificates can be earned.</p> </div> <div style="width: 45%; padding: 5px;"> <p>An academic degree is an award for the completion of a program or course of study over multiple years at postsecondary education institutions.</p> <p>In 2015-2016, 73 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).</p> </div> </div>	<b>12th Grade</b>	<b>1-Year Certificate</b>	<b>2-Year Associate or Technical Degree</b>	<b>4-Year Bachelor's Degree</b>	<b>More Graduate or Prof. Degree</b>	<p><b>Utah Business and Industry Facts</b></p> <p>From commercial to residential, Utah is home to more than 900 architects and building designers.</p> <p>According to the Utah Department of Workforce Services, business expansion will provide the majority of job openings in the coming decade.</p> <p>In Utah, an architect must be licensed.</p>																																						
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<p style="text-align: center; color: #00a651;"><b>CTE Skill Certificates</b></p> <p style="font-size: small;">Competency-based student assessments, measured by core standards and competencies needed to be successful in the workforce.</p>	<p style="text-align: center;"><b>UtahFutures: College and Career Planning</b></p> <p style="text-align: center; font-size: small;">Visit <a href="http://UtahFutures.org">UtahFutures.org</a> for salary projections, labor market demand, and training options.</p>																																												
<p style="font-size: small;">In 2016-2017, 105,691 CTE skill certificates were awarded to high school students. Students' knowledge and performance is demonstrated as part of the Skill Certificate process.</p>	<p style="font-size: small;">In 2016-2017, the graduation rate for students who concentrated in a CTE Career Pathway was 95 percent, compared to Utah's statewide graduation rate of 86 percent.</p>																																												