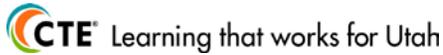


Utah Career and Technical Education Career Pathway

2017-2018 School Year



Career Cluster: Architecture & Construction																																																																								
Career Pathway: CAD Architectural Design																																																																								
<p>CTSO Information 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>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.</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>	<table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <thead> <tr style="background-color: #00a651; color: white;"> <th>CORE CODE</th> <th>FOUNDATION COURSES (required)</th> <th>CREDITS</th> <th></th> </tr> </thead> <tbody> <tr> <td>38.01.00.00.041</td> <td>CAD Architectural Design 1 *</td> <td>.50</td> <td rowspan="3">1.50-2.00 credits</td> </tr> <tr> <td>38.01.00.00.042</td> <td>CAD Architectural Design 2 *</td> <td>.50</td> </tr> <tr> <td>38.01.00.00.043</td> <td>CAD Architectural Design 3</td> <td>.50</td> </tr> <tr> <td colspan="4" style="text-align: center;"><i>Or choose the following course:</i></td> </tr> <tr> <td>38.01.00.00.330</td> <td>PLTW Civil Engineering and Architecture</td> <td>1.00</td> <td rowspan="2">1.00-1.50 credits</td> </tr> <tr> <td>38.01.00.00.300</td> <td>PLTW Introduction to Engineering Design</td> <td>1.00</td> </tr> <tr style="background-color: #00a651; color: white;"> <th colspan="2">ELECTIVE COURSES</th> <th></th> <th></th> </tr> <tr> <td>40.10.00.00.020</td> <td>Cabinetmaking</td> <td>1.00</td> <td rowspan="11">1.00-1.50 credits</td> </tr> <tr> <td>40.08.00.00.010</td> <td>Carpentry 1</td> <td>1.00</td> </tr> <tr> <td>40.08.00.00.035</td> <td>Construction Trades Foundation</td> <td>.50</td> </tr> <tr> <td>40.08.00.00.050</td> <td>Electrician 1</td> <td>.50</td> </tr> <tr> <td>38.03.00.00.010</td> <td>Engineering Technology</td> <td>.50</td> </tr> <tr> <td>35.02.00.00.090</td> <td>Geographic Information Systems (GIS) Remote Sensing</td> <td>.50</td> </tr> <tr> <td>40.09.00.00.050</td> <td>Heating/Air Conditioning/Refrigeration (HVACR)</td> <td>1.00</td> </tr> <tr> <td>34.01.00.00.210</td> <td>Interior Design 1</td> <td>.50</td> </tr> <tr> <td>35.02.00.00.080</td> <td>Introduction to Geographical Information Systems (GIS)</td> <td>.50</td> </tr> <tr> <td>38.01.00.00.211</td> <td>Physics with Technology</td> <td>1.00</td> </tr> <tr> <td>40.08.00.00.100</td> <td>Plumbing 1</td> <td>1.00</td> </tr> <tr> <td>41.00.00.00.030</td> <td>Workplace Skills</td> <td>.50</td> </tr> <tr> <td colspan="2"></td> <td colspan="2" style="text-align: center;">3.00 credits for completion</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; font-weight: bold; margin-top: 10px;">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.</p>	CORE CODE	FOUNDATION COURSES (required)	CREDITS		38.01.00.00.041	CAD Architectural Design 1 *	.50	1.50-2.00 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	1.00-1.50 credits	38.01.00.00.300	PLTW Introduction to Engineering Design	1.00	ELECTIVE COURSES				40.10.00.00.020	Cabinetmaking	1.00	1.00-1.50 credits	40.08.00.00.010	Carpentry 1	1.00	40.08.00.00.035	Construction Trades Foundation	.50	40.08.00.00.050	Electrician 1	.50	38.03.00.00.010	Engineering Technology	.50	35.02.00.00.090	Geographic Information Systems (GIS) Remote Sensing	.50	40.09.00.00.050	Heating/Air Conditioning/Refrigeration (HVACR)	1.00	34.01.00.00.210	Interior Design 1	.50	35.02.00.00.080	Introduction to Geographical Information Systems (GIS)	.50	38.01.00.00.211	Physics with Technology	1.00	40.08.00.00.100	Plumbing 1	1.00	41.00.00.00.030	Workplace Skills	.50			3.00 credits for completion		<p>CAD Architectural Design is:</p> <ul style="list-style-type: none"> > High skill > High wage > High demand <p>Sample Occupations Requiring:</p> <p><u>High School Diploma</u> > Surveying and Mapping Tech</p> <p><u>Certificate</u> > N/A</p> <p><u>Assoc. or Technical Degree</u> > Architectural Drafter > Civil Drafter</p> <p><u>Baccalaureate Degree</u> > Architect > Architectural and Engineering Managers > Career and Technical Education Teacher > Civil Engineer > Landscape Architect > Secondary Education Teacher > Surveyor</p> <p><u>Graduate or Prof. Degree</u> > Architect</p>
CORE CODE	FOUNDATION COURSES (required)	CREDITS																																																																						
38.01.00.00.041	CAD Architectural Design 1 *	.50	1.50-2.00 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	1.00-1.50 credits																																																																					
38.01.00.00.300	PLTW Introduction to Engineering Design	1.00																																																																						
ELECTIVE COURSES																																																																								
40.10.00.00.020	Cabinetmaking	1.00	1.00-1.50 credits																																																																					
40.08.00.00.010	Carpentry 1	1.00																																																																						
40.08.00.00.035	Construction Trades Foundation	.50																																																																						
40.08.00.00.050	Electrician 1	.50																																																																						
38.03.00.00.010	Engineering Technology	.50																																																																						
35.02.00.00.090	Geographic Information Systems (GIS) Remote Sensing	.50																																																																						
40.09.00.00.050	Heating/Air Conditioning/Refrigeration (HVACR)	1.00																																																																						
34.01.00.00.210	Interior Design 1	.50																																																																						
35.02.00.00.080	Introduction to Geographical Information Systems (GIS)	.50																																																																						
38.01.00.00.211	Physics with Technology	1.00																																																																						
40.08.00.00.100	Plumbing 1	1.00																																																																						
41.00.00.00.030	Workplace Skills	.50																																																																						
		3.00 credits for completion																																																																						
HIGH SCHOOL TO POSTSECONDARY EDUCATION AND TRAINING		Utah Business and Industry Facts																																																																						
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																																																																				
<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>		<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>																																																																						
<p>CTE Skill Certificates Competency-based student assessments, measured by core standards and competencies needed to be successful in the workforce.</p>		<p>UtahFutures: College and Career Planning Visit UtahFutures.org for salary projections, labor market demand, and training options.</p>																																																																						
<p>In 2015-2016, 96,190 CTE skill certificates were awarded to high school students. Students' knowledge and performance is demonstrated as part of the Skill Certificate process.</p>		<p>In 2015-2016, the graduation rate for students who concentrated in a CTE Career Pathway was 96.6 percent, compared to Utah's statewide graduation rate of 85 percent.</p>																																																																						