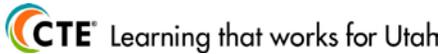


Utah Career and Technical Education Career Pathway

2017-2018 School Year



Career Cluster: Engineering & Technology																																																							
Career Pathway: Electrical Engineering																																																							
<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 CTSSO for students in the Electrical Engineering Career Pathway. TSA fosters personal growth, leadership, and opportunities in science, technology, engineering, and mathematics (STEM).</p> <p>Workforce Trends Employment will be limited by computer-aided design and other technologies that increase productivity.</p> <p>Job opportunities will be best for those individuals who have an associate degree or extensive job training.</p>	<table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <thead> <tr style="background-color: #00a6c9; color: white;"> <th>CORE CODE</th> <th>FOUNDATION COURSES (required)</th> <th>CREDITS</th> </tr> </thead> <tbody> <tr style="background-color: #00a6c9; color: white;"> <td colspan="3">Foundation Component</td> </tr> <tr> <td>38.01.00.00.151</td> <td>Engineering Principles 1</td> <td>.50</td> </tr> <tr> <td>38.01.00.00.021</td> <td>Electronics 1 *</td> <td>.50</td> </tr> <tr> <td>38.01.00.00.022</td> <td>Electronics 2</td> <td>.50</td> </tr> <tr> <td>38.01.00.00.023</td> <td>Electronics 3</td> <td>.50</td> </tr> <tr> <td colspan="3"><i>Or choose the following courses:</i></td> </tr> <tr> <td>38.01.00.00.320</td> <td>PLTW Digital Electronics</td> <td>1.00</td> </tr> <tr> <td>38.01.00.00.310</td> <td>PLTW Principles of Engineering</td> <td>1.00</td> </tr> <tr style="background-color: #00a6c9; color: white;"> <td colspan="3">Capstone Component</td> </tr> <tr> <td>38.01.00.00.990</td> <td>Engineering Capstone</td> <td>1.00</td> </tr> <tr> <td colspan="3"><i>Or choose the following course:</i></td> </tr> <tr> <td>38.01.00.00.390</td> <td>PLTW Engineering Design and Development</td> <td>1.00</td> </tr> <tr style="background-color: #00a6c9; color: white;"> <td colspan="3">ELECTIVE COURSES</td> </tr> <tr> <td>38.03.00.00.010</td> <td>Engineering Technology</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>41.00.00.00.030</td> <td>Workplace Skills</td> <td>.50</td> </tr> <tr> <td colspan="3">3.00 credits for completion</td> </tr> </tbody> </table> <p style="font-size: small;">* 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;">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	Foundation Component			38.01.00.00.151	Engineering Principles 1	.50	38.01.00.00.021	Electronics 1 *	.50	38.01.00.00.022	Electronics 2	.50	38.01.00.00.023	Electronics 3	.50	<i>Or choose the following courses:</i>			38.01.00.00.320	PLTW Digital Electronics	1.00	38.01.00.00.310	PLTW Principles of Engineering	1.00	Capstone Component			38.01.00.00.990	Engineering Capstone	1.00	<i>Or choose the following course:</i>			38.01.00.00.390	PLTW Engineering Design and Development	1.00	ELECTIVE COURSES			38.03.00.00.010	Engineering Technology	.50	38.01.00.00.211	Physics with Technology	1.00	41.00.00.00.030	Workplace Skills	.50	3.00 credits for completion		
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<p>Student Testimonial</p> <p>“Engineering, electronics, an architectural design, I found joy in these courses. These CTE Pathways have shown me many careers that provide [income] and most importantly joy and well-being.”</p> <p style="text-align: right;">Michael Contreras</p>	<table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <thead> <tr style="background-color: black; color: white;"> <th colspan="5">HIGH SCHOOL TO POSTSECONDARY EDUCATION AND TRAINING</th> </tr> <tr style="background-color: black; color: white;"> <th colspan="5">There are a number of options for education and training beyond high school, depending on your career goals.</th> </tr> <tr> <th style="background-color: #00a6c9; color: white;">12th Grade</th> <th style="background-color: #ff8c00; color: white;">1-Year Certificate</th> <th style="background-color: #92d050; color: white;">2-Year Associate or Technical Degree</th> <th style="background-color: #ffd700; color: white;">4-Year Bachelor's Degree</th> <th style="background-color: #808080; color: white;">More Graduate or Prof. Degree</th> </tr> </thead> <tbody> <tr> <td style="width: 20%; vertical-align: top; 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> </td> <td colspan="4" style="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> </td> </tr> </tbody> </table>	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	<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>																																					
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<p>Utah Business and Industry Facts</p> <p>According to the Utah Department of Workforce Services, the median annual salary for an experienced electronics engineering technician is \$60,660.</p> <p>In Utah, more than 1,400 individuals are employed as electrical engineers.</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>																																																						