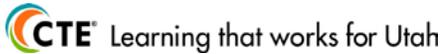


# Utah Career and Technical Education Career Pathway

## 2017-2018 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>SkillsUSA is the CTSO for students in the Machine Tool Career Pathway. SkillsUSA provides quality education experiences for students in leadership, teamwork, citizenship, and character development.</p> <p><b>Workforce Trends</b> Despite rising productivity that is expected to limit employment growth, opportunities should be excellent because not enough qualified people are attracted to production-related occupations.</p>	<h3 style="margin: 0;">Career Cluster: Manufacturing</h3> <h4 style="margin: 0;">Career Pathway: Machine Tool</h4>	<p><b>Machine Tool 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><u>High School Diploma</u></p> <ul style="list-style-type: none"> <li>&gt; Industrial Machinery Mechanic</li> <li>&gt; Machinist</li> <li>&gt; Tool and Die Makers</li> </ul> <p><u>Certificate</u></p> <ul style="list-style-type: none"> <li>&gt; N/A</li> </ul> <p><u>Assoc. or Technical Degree</u></p> <ul style="list-style-type: none"> <li>&gt; N/A</li> </ul> <p><u>Baccalaureate Degree</u></p> <ul style="list-style-type: none"> <li>&gt; Career and Technical Education Teacher</li> </ul> <p><u>Graduate or Prof. Degree</u></p> <ul style="list-style-type: none"> <li>&gt; N/A</li> </ul>																																									
<table border="1" style="width: 100%; border-collapse: collapse; margin: 0 auto;"> <thead> <tr style="background-color: #00a651; color: white;"> <th style="width: 15%;">CORE CODE</th> <th style="width: 45%;">FOUNDATION COURSES (required)</th> <th style="width: 15%;">CREDITS</th> <th style="width: 25%;"></th> </tr> </thead> <tbody> <tr> <td>40.10.00.00.072</td> <td>Machining 1 *</td> <td style="text-align: center;">.50</td> <td rowspan="2" style="text-align: center; vertical-align: middle;">1.00 credit</td> </tr> <tr> <td>40.10.00.00.070</td> <td>Machining 2 *</td> <td style="text-align: center;">.50</td> </tr> <tr style="background-color: #00a651; color: white;"> <th colspan="4" style="text-align: center;">ELECTIVE COURSES</th> </tr> <tr> <td>38.01.00.00.051</td> <td>CAD Mechanical Design 1 *</td> <td style="text-align: center;">.50</td> <td rowspan="7" style="text-align: center; vertical-align: middle;">2.00 credits</td> </tr> <tr> <td>38.01.00.00.052</td> <td>CAD Mechanical Design 2</td> <td style="text-align: center;">.50</td> </tr> <tr> <td>40.10.00.00.085</td> <td>Metalworking 1 *</td> <td style="text-align: center;">.50</td> </tr> <tr> <td>38.01.00.00.340</td> <td>PLTW Computer Integrated Manufacturing</td> <td style="text-align: center;">1.00</td> </tr> <tr> <td>38.01.00.00.390</td> <td>PLTW Engineering Design and Development</td> <td style="text-align: center;">1.00</td> </tr> <tr> <td>40.10.00.00.110</td> <td>Welding Technician, Entry Level *</td> <td style="text-align: center;">.50</td> </tr> <tr> <td>41.00.00.00.030</td> <td>Workplace Skills</td> <td style="text-align: center;">.50</td> </tr> <tr> <td colspan="4" style="text-align: center; background-color: #333; color: white; padding: 5px;"><b>3.00 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.</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		40.10.00.00.072	Machining 1 *	.50	1.00 credit	40.10.00.00.070	Machining 2 *	.50	ELECTIVE COURSES				38.01.00.00.051	CAD Mechanical Design 1 *	.50	2.00 credits	38.01.00.00.052	CAD Mechanical Design 2	.50	40.10.00.00.085	Metalworking 1 *	.50	38.01.00.00.340	PLTW Computer Integrated Manufacturing	1.00	38.01.00.00.390	PLTW Engineering Design and Development	1.00	40.10.00.00.110	Welding Technician, Entry Level *	.50	41.00.00.00.030	Workplace Skills	.50	<b>3.00 credits for completion</b>			
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<p><b>Student Testimonial</b></p> <p>"I took machine tool because I heard it was a great program, and that machinist make good money. I'm a hands-on worker and like to make stuff and see the finished product. If I'm going to work I want it to be something I want to do every day and enjoy doing it. I love being a machinist and I could see myself doing this for the rest of my life."</p> <p style="text-align: right; font-size: small;">Gates Hadley</p>	<h3 style="margin: 0;">HIGH SCHOOL TO POSTSECONDARY EDUCATION AND TRAINING</h3> <p style="font-size: small; margin: 0;">There are a number of options for education and training beyond high school, depending on your career goals.</p>	<p><b>Utah Business and Industry Facts</b></p> <p>Many businesses in Utah rely on the expertise of machinists, and their skilled knowledge of using precise measurements, as technologically advanced materials and equipment are manufactured and assembled.</p> <p>According to the Governor's Office of Economic Development (GOED), the Northern Utah region has a strong existing base of aerospace and composites companies, with more than 30 companies and an estimated 16,500 employers.</p>																																									
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<p style="text-align: center; font-weight: bold; font-size: small;">CTE Skill Certificates</p> <p style="font-size: x-small;">Competency-based student assessments, measured by core standards and competencies needed to be successful in the workforce.</p>		<p style="text-align: center; font-weight: bold; font-size: small;">UtahFutures: College and Career Planning</p> <p style="font-size: x-small;">Visit <a href="http://UtahFutures.org">UtahFutures.org</a> 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>																																									