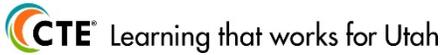


Utah Career and Technical Education Career Pathway 2019-2020 School Year



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

Students who participate in the Welding Career Pathway choose among the following CTOS, depending upon what is available at their school:
FFA | SkillsUSA

Workforce Trends
In Utah, the occupation projection for welders, cutters, solderers, and brazers is 290 annual openings. Job prospects should be excellent for skilled candidates.

Career Cluster: Manufacturing

Career Pathway: Welding

CORE CODE	FOUNDATION COURSES (required)	CREDITS	
40.10.00.00.110	Welding Technician, Entry Level	1.00	2.00 credits
40.10.00.00.112	Welding Technician, Intermediate Level	1.00	
ELECTIVE COURSES			
38.01.00.00.051	CAD Mechanical Design 1 *	.50	1.00 credit
38.01.00.00.052	CAD Mechanical Design 2	.50	
40.10.00.00.072	Machining 1 *	.50	
40.10.00.00.070	Machining 2 *	.50	
40.04.00.00.001	Non-destructive Testing	.50	
40.04.00.13.001	Non-destructive Testing CE	.50	
40.10.00.00.114	Welding Technician, Advanced Level *	1.00	
41.00.00.00.050	CTE Internship	.50	
41.00.00.00.030	Workplace Skills	.50	
3.00 credits for completion			

* Course can be taken up to 1.00 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.

Welding is:
> High-skill
> In-demand

Sample Occupations Requiring:
[High School Diploma](#)
> Welder, Cutter, Solderer, and Brazer
> Welder and Solderer Machine Operator

[Certificate](#)
> Welder

[Assoc. or Technical Degree](#)
> N/A

[Baccalaureate Degree](#)
> Career and Technical Education Teacher

[Graduate or Prof. Degree](#)
> N/A

Student Testimonial
"I took my first welding class in my sophomore year of high school and fell in love with it. Welding prepared me for college and my career by showing me I will have to continue on without giving up to reach my goals."
Fillmore Tukuafu

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 construction sites to automotive body shops, from farms to manufacturing plants, welders are found in numerous industries throughout Utah.

According to the Utah Department of Workforce Services, the median hourly wage for a welders, cutters, solderers and brazers is \$18.64.

UtahFutures: College and Career Planning

Visit UtahFutures.org to explore occupations, search salary projections, access labor market information, investigate training options, and to create a plan.

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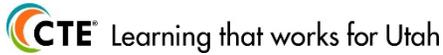
CTE Credentials of Value

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.

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.

SkillsUSA is the CTSO for students in the Cabinetmaking/Millwork Career Pathway. SkillsUSA provides quality education experiences for students in leadership, teamwork, citizenship, and character development.

Workforce Trends
 Job prospects will be best for highly skilled workers and those with knowledge of computerized machine tool operation.

Career Cluster: Manufacturing

Career Pathway: Advanced Manufacturing: Cabinetmaking/Millwork

CORE CODE	FOUNDATION COURSES (required)	CREDITS	
40.10.00.00.020	Cabinetmaking	1.00	1.50 credits
40.10.00.00.130	Furniture Design and Manufacturing *	.50	
ELECTIVE COURSES			
38.01.00.00.041	CAD Architectural Design 1 *	.50	1.50 credits
38.01.00.00.051	CAD Mechanical Design 1 *	.50	
40.13.00.00.030	Industrial Design *	1.00	
40.10.00.00.072	Machining 1 *	.50	
40.10.00.00.070	Machining 2 *	.50	
40.10.00.00.085	Metalworking 1 *	.50	
38.01.00.00.330	PLTW Civil Engineering and Architecture	1.00	
38.01.00.00.390	PLTW Engineering Design and Development	1.00	
40.10.00.00.120	Woodworking *	.50	
41.00.00.00.050	CTE Internship	.50	
41.00.00.00.030	Workplace Skills	.50	
3.00 credits for completion			

* Course can be taken up to 1.00 credit

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Cabinetmaking/Millwork is:
 > In-demand

Sample Occupations Requiring:
[High School Diploma](#)
 > Cabinetmaker
 > Carpenter
 > Supervisor of Construction Workers

Certificate
 > Cabinetmaking and Furniture Construction

Assoc. or Technical Degree
 > Cabinetry and Architectural Woodwork

Baccalaureate Degree
 > Career and Technical Education Teacher

Graduate or Prof. Degree
 > N/A

Student Testimonial
 "Throughout my high school career, I focused on the Cabinetmaking/Millwork CTE Pathway. My CTE classes have prepared me in many ways such as teaching me the knowledge I need to know about woodworking, learning about all the tools and machines and how to use the, and how to create and read plans."
 Kaydee Walters

HIGH SCHOOL TO POSTSECONDARY EDUCATION AND TRAINING

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Utah Business and Industry Facts
 From residential to commercial construction, cabinetmakers and carpenters are in demand throughout Utah.

According to the Utah Department of Workforce Services, the median hourly wage for cabinetmakers and bench carpenters in Utah is \$16.11.

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Utah Career and Technical Education Career Pathway

2019-2020 School Year



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

SkillsUSA is the CTSSO for students in the Machine Tool Career Pathway. SkillsUSA provides quality education experiences for students in leadership, teamwork, citizenship, and character development.

Workforce Trends
 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.

Career Cluster: Manufacturing

Career Pathway: Advanced Manufacturing: Machine Tool

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	
41.00.00.00.050	CTE Internship	.50	
41.00.00.00.030	Workplace Skills	.50	
3.00 credits for completion			

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Machine Tool is:

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

Sample Occupations Requiring:

[High School Diploma](#)

- > Industrial Machinery Mechanic
- > Machinist
- > Tool and Die Makers

[Certificate](#)

- > N/A

[Assoc. or Technical Degree](#)

- > N/A

[Baccalaureate Degree](#)

- > Career and Technical Education Teacher

[Graduate or Prof. Degree](#)

- > N/A

Student Testimonial

"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."

Gates Hadley

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Utah Business and Industry Facts

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.

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 employees.

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