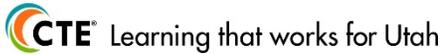


Utah Career and Technical Education Career Pathway

2019-2020 School Year



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

TSA is the CTSO for students in the CAD Mechanical Design Career Pathway. TSA fosters personal growth, leadership, and opportunities in science, technology, engineering, and mathematics (STEM).

Workforce Trends
 Industrial growth and increasingly complex designs will spur growth in drafting services. As technology advances, opportunities will be best for drafters with at least 2 years of postsecondary training, and computer-aided design systems experience.

Career Cluster: Engineering & Technology

Career Pathway: CAD Mechanical Design

CORE CODE	FOUNDATION COURSES (required)	CREDITS	
38.01.00.00.051	CAD Mechanical Design 1	.50	1.50 credits
38.01.00.00.052	CAD Mechanical Design 2	.50	
38.01.00.00.053	CAD Mechanical Design 3	.50	
Or choose the following courses:			
38.01.00.00.300	PLTW Introduction to Engineering Design	1.00	
ELECTIVE COURSES			
38.03.00.00.010	Engineering Technology	.50	1.00 credit
40.13.00.00.030	Industrial Design	1.00	
38.01.00.00.211	Physics with Technology	1.00	
41.00.00.00.050	CTE Internship	.50	
41.00.00.00.030	Workplace Skills	.50	
		2.50 credits for completion	

Foundation courses taken beyond the required credits can be used as elective 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.

CAD Mechanical Design is:
 > High-skill
 > High-wage

Sample Occupations Requiring:
[High School Diploma](#)
 > N/A

[Certificate](#)
 > N/A

[Assoc. or Technical Degree](#)
 > Engineering Technician
 > Mechanical Drafter
 > Mechanical Engineering Technician

[Baccalaureate Degree](#)
 > Aerospace Engineer
 > Career and Technical Education Teacher
 > Civil Engineer
 > Industrial Designer
 > Mechanical Engineer
 > Secondary Education Teacher

[Graduate or Prof. Degree](#)
 > Mechanical Engineer

Student Testimonial
 “My training, in CTE courses in high school, prepared me for life after high school by helping me discover my love of drafting. I discovered the need for drafters in the world of engineering. I focused my CTE Pathway toward this career goal and have taken some advanced drafting classes to improve both my knowledge of the field and my employability in the field.”

Calvin Hill

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

According to the Utah Department of Workforce Services, 620 mechanical drafters are employed by more than 3,000 businesses throughout the state.

The annual median salary for an experienced mechanical drafter is \$51,690.

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.

Visit UtahCTE.org to access high-quality, rigorous career-focused programs that result in attainment of credentials with labor market value.

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.