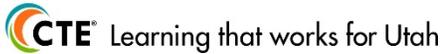


Utah Career and Technical Education Career Pathway 2019-2020 School Year



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 Aeronautical Engineering Career Pathway. TSA fosters personal growth, leadership, and opportunities in science, technology, engineering, and mathematics (STEM).

Workforce Trends

Nationwide, employment of aerospace engineers is projected to grow 6 percent through the year 2026. Employment opportunities will be best for those trained in software, such as C++, or with education and experience in stress and structural engineering.

Career Cluster: Engineering & Technology

Career Pathway: Aeronautical Engineering

CORE CODE	FOUNDATION COURSES (required)	CREDITS		
Aeronautical Component				
08.06.00.00.040	Aerospace	1.00	3.00 credits	
<i>Or choose the following course:</i>				
38.01.00.00.350	PLTW Aerospace Engineering	1.00		
Foundation Component				
38.01.00.00.151	Engineering Principles 1	.50		
38.01.00.00.152	Engineering Principles 2	.50		
<i>Or choose the following course:</i>				
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		
41.00.00.00.050	CTE Internship	.50		
41.00.00.00.030	Workplace Skills	.50		
3.00 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.

Aeronautical Engineering is:

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

Sample Occupations Requiring:

- High School Diploma
- > N/A
- Certificate
- > N/A
- Assoc. or Technical Degree
- > Engineering Technician
- > Inspection Technician
- > Testing Technician
- Baccalaureate Degree
- > Aerospace Engineer
- > Architectural and Engineering Manager
- > Career and Technical Education Teacher

Graduate or Prof. Degree

- > Aerospace Engineer

Student Testimonial

"CTE classes have shown me a clear path for my future, because I have been able to experience more than just math and English. A CTE Internship, combined with my engineering classes, has given me a great insight to what the future holds for me. I believe an aerospace engineering and operations technician job is exactly what I want. I will be able to build, test, and maintain aircraft."
Preston Henke

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 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).</p>		

Utah Business and Industry Facts

Aerospace and aviation companies located in Utah employ more than 42,000 workers.

Utah high school seniors have the opportunity to participate in the [Utah Aerospace Pathways program](#). The program was created by industry to open opportunities for young men and women who are interested in the aerospace.

CTE Skill Certificates

Competency-based student assessments, measured by core standards and competencies, needed to be successful in the workforce.

In 2017-2018, 111,238 CTE skill certificates were awarded to high school students. Students' knowledge and performance is demonstrated as part of the Skill Certificate process.

UtahFutures: College and Career Planning

Visit UtahFutures.org for salary projections, labor market demand, and training options.

In 2016-2017, the graduation rate for students who concentrated in a CTE Career Pathway was 95 percent, compared to Utah's statewide graduation rate of 86 percent.