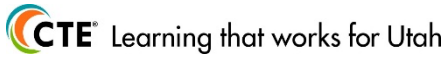


Utah Career and Technical Education Career Pathway

2019-2020 School Year



CTSO Information
 Career and Technical Student Organizations (CTSO) align with the national Career Clusters® and the Utah CTE Career Pathways.
 FFA is the CTSO for students in the Agricultural Mechanics Systems Career Pathway. FFA brings relevance to the classroom through industry-based competitive events and community service.

Workforce Trends
 According to the U.S. Department of Labor, the growing interest in worldwide standardization of agricultural equipment should result in increased employment of agricultural engineers. Job opportunities should result from the increasing demand for agricultural products, the continued efforts for more efficient agricultural production, and the increasing emphasis on the conservation of resources.

Career Cluster: Agriculture, Food & Natural Resources

Career Pathway: Agricultural Mechanics Systems

CORE CODE	FOUNDATION COURSES (required)	CREDITS	
30.01.00.00.030	Agricultural Systems Technology 1	1.00	2.00 credits
30.01.00.00.040	Agricultural Systems Technology 2	1.00	
ELECTIVE COURSES			
30.01.00.00.020	Agricultural Machinery Technology	1.00	1.00 credit
30.01.00.00.001	Agricultural Mechanics, Advanced	1.00	
30.01.00.00.050	Agricultural Science 1	1.00	
30.02.00.00.050	Biology-Agricultural Science	1.00	
32.02.00.00.110	Business Communication 1	.50	
32.02.00.00.111	Business Communication 2	.50	
32.02.00.00.140	Business Management	.50	
38.03.00.00.020	Industrial and Agricultural Technology (IAT)	1.00	
37.01.00.00.150	Leadership Principles 1	1.00	
40.10.00.00.110	Welding Technician, Entry Level	1.00	
40.10.00.00.112	Welding Technician, Intermediate Level	1.00	
40.10.00.00.114	Welding Technician, Advanced Level	1.00	
	Summer Agriculture Program	.25	
	Supervised Agriculture Experience Program (capstone experience)		
41.00.00.00.050	CTE Internship	.50	
41.00.00.00.030	Workplace Skills	.50	
3.00 credits for completion			

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.

Agricultural Mechanics Systems is:
 > High skill
 > High demand

Sample Occupations Requiring:
High School Diploma
 > Heavy Equipment Operator
 > Truck Driver
 > Welder, Cutters, Solderers, and Brazers

Certificate
 > Hydraulic Technician
 > Maintenance Service Tech.
 > Welder

Assoc. or Technical Degree
 > Agricultural Engineer Tech.
 > Diesel Mechanic
 > Equipment Dealer Technician

Baccalaureate Degree
 > Agricultural Engineer
 > Career and Technical Education Teacher
 > Welding Engineer

Graduate or Prof. Degree
 > Geospatial Analytics Scientist
 > Postsecondary Teacher
 > Research Engineer

Student Testimonial
 “The CTE classes I took in high school, such as agricultural systems and technology, animal science, and floriculture, have given me the basic skills, knowledge and abilities to allow me to obtain employment in any of those fields.”
 Colton Zilles

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
 Utah agriculturists produce crops and livestock worth over \$1.8 billion annually.
 Students enrolled in high school agricultural courses are looking to join a \$22 billion industry in Utah and a \$992 billion industry nationwide.
 (Utah Department of Agriculture and Food)

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.