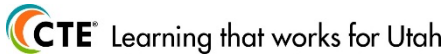


Utah Career and Technical Education Career Pathway

2019-2020 School Year



Career Cluster: Engineering & Technology

Career Pathway: Electrical Engineering

CORE CODE	FOUNDATION COURSES (required)	CREDITS
Foundation Component		
38.01.00.00.151	Engineering Principles 1	.50
38.01.00.00.021	Electronics 1	.50
38.01.00.00.022	Electronics 2	.50
38.01.00.00.023	Electronics 3	.50
<i>Or choose the following courses:</i>		
38.01.00.00.320	PLTW Digital Electronics	1.00
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.

Electrical Engineering is:

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

Sample Occupations Requiring:

High School Diploma

- > Electronics Equipment Assembler

Certificate

- > Electronics Installer Repairer

Assoc. or Technical Degree

- > Electronics Drafter
- > Electronics Engineering Technician

Baccalaureate Degree

- > Career and Technical Education Teacher
- > Electrical Engineer
- > Electronics Engineer

Graduate or Prof. Degree

- > Electronics Engineer

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

Workforce Trends

Employment will be limited by computer-aided design and other technologies that increase productivity.

Job opportunities will be best for those individuals who have an associate degree or extensive job training.

Student Testimonial

“Engineering, electronics, an architectural design, I found joy in these courses. These CTE Pathways have shown me many careers that provide [income] and most importantly joy and well-being.”

Michael Contreras

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

According to the Utah Department of Workforce Services, the median annual salary for an experienced electronics engineering technician is \$60,660.

In Utah, more than 1,400 individuals are employed as electrical engineers.

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.