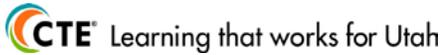


# Utah Career and Technical Education Career Pathway

## 2017-2018 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 Digital Media Career Pathway choose among the following CTSOs, depending upon what is available at their school:  
 FBLA | SkillsUSA | TSA

**Workforce Trends**  
 Digital media is the field of the future and is rapidly growing. Because our global economy is driven by technology digital media is one of the most in-demand fields. With more than 3 billion Internet users worldwide and more than 1 billion websites, the demand for individuals skilled in digital media is high.

### Career Cluster: Information Technology

#### Career Pathway: Digital Media

CORE CODE	FOUNDATION COURSES (required)	CREDITS	
35.02.00.00.010	Digital Media 1	1.00	2.00 credits
<i>Choose 1.00 credit from the following courses:</i>			
35.02.00.00.075	3D Animation	.50	
35.02.00.00.070	3D Graphics	.50	
35.02.00.00.011	Digital Media 2	1.00	
ELECTIVE COURSES			
32.02.00.00.280	Business Web Page Design	.50	1.00 credit
37.01.00.00.001	Digital Marketing	.50	
32.02.00.00.220	Entrepreneurship	.50	
35.02.00.00.045	Gaming Development Fundamentals	.50	
40.10.00.00.040	Graphic Communications, Introduction *	.50	
35.02.00.00.005	Introduction to Information Technology	.50	
35.02.00.00.060	Web Development 1	1.00	
41.00.00.00.030	Workplace Skills	.50	
<b>3.00 credits for completion</b>			

\* Course can be taken up to 1.00 credit.  
 Foundation courses taken beyond the required credits can be used as elective credit.  
 Visit [UtahCTE.org](http://UtahCTE.org) to learn how to earn industry certification in this Career Pathway.

**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.**

**Digital Media is:**  
 > High skill  
 > High wage  
 > High demand

**Sample Occupations Requiring:**  
[High School Diploma](#)  
 > N/A  
**Certificate**  
 > N/A  
[Assoc. or Technical Degree](#)  
 > Web Developer  
[Baccalaureate Degree](#)  
 > Career and Technical Education Teacher  
 > Graphic Designer  
 > Multimedia Artist and Animator  
 > Software Developer  
 > Web Administrator  
[Graduate or Prof. Degree](#)  
 > Software Engineer

**Student Testimonial**  
 "To reach my goal of becoming a graphic designer and animator, I will need to gain both an education and extensive experience. I have begun my experience and education by taking multiple CTE classes while still in high school, that will prepare me for the fields of graphic design and animation. The CTE classes have given me the preparation and foundation for college that I will need to stay one step ahead in order to succeed."  
 Lauren Yancey

### 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.

<b>12th Grade</b>	<b>1-Year Certificate</b>	<b>2-Year Associate or Technical Degree</b>	<b>4-Year Bachelor's Degree</b>	<b>More Graduate or Prof. Degree</b>
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 2015-2016, 73 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).		

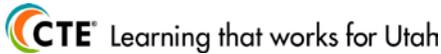
**Utah Business and Industry Facts**  
 "The talent pool of computer engineers, digital artists and animators in Utah is astounding," said WildWorks CEO Clark Stacey. "The workforce talent here is perennially refreshed not only by in-state colleges and universities, but by seasoned professionals fleeing the congestion and high cost of living in other hub cities like San Francisco and Seattle."  
*Silicon Slopes Magazine, Spring 2017*

**CTE Skill Certificates**  
 Competency-based student assessments, measured by core standards and competencies needed to be successful in the workforce.  
 In 2015-2016, 96,190 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](http://UtahFutures.org) for salary projections, labor market demand, and training options.  
 In 2015-2016, the graduation rate for students who concentrated in a CTE Career Pathway was 96.6 percent, compared to Utah's statewide graduation rate of 85 percent.

# Utah Career and Technical Education Career Pathway

## 2017-2018 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 Network and IT Support Career Pathway choose among the following CTOS, depending upon what is available at their school:  
 FBLA | SkillsUSA | TSA

**Workforce Trends**  
 Growth will be driven by rapid increases in the computer and data processing services industry.

In Utah, the average annual employment growth rate for computer systems analysts is 5 percent through the year 2024.

According to the Utah Technology Council, IT occupations account for \$6.9 billion (14.3 percent) of Utah's total payroll.

### Career Cluster: Information Technology

### Career Pathway: Network & IT Support

CORE CODE	FOUNDATION COURSES (required)	CREDITS	
<i>Choose 2.00 credits from the following courses:</i>			
35.01.00.00.040	A+ (Computer Maintenance)	1.00	2.00 credits
35.02.00.00.005	Cisco Certified Network Administrator (CCNA)	1.00	
35.02.00.00.005	Introduction to Information Technology	.50	
35.01.00.00.025	Linux Fundamentals	1.00	
35.01.00.00.020	Microsoft Certified Professional (MCP)	1.00	
35.01.00.00.030	Network Fundamentals	.50	
ELECTIVE COURSES			
35.02.00.00.021	Database Development	1.00	1.00 credit
35.01.00.00.020	Microsoft Certified Professional	1.00	
35.01.00.00.036	Security Fundamentals	.50	
41.00.00.00.030	Workplace Skills	.50	
<b>3.00 credits for completion</b>			

Foundation courses taken beyond the required credits can be used as elective credit.  
 Visit [UtahCTE.org](http://UtahCTE.org) to learn how to earn industry certification in this Career Pathway.

**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.**

**Network & IT Support is:**  
 > High skill  
 > High wage  
 > High demand

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

**Certificate**  
 > N/A

**Assoc. or Technical Degree**  
 > Computer Network Support Specialist

**Baccalaureate Degree**  
 > Career and Technical Education Teacher  
 > Computer Network Architect  
 > Computer and Information Systems Manager  
 > Computer Systems Analyst  
 > Database Administrator  
 > Network and Computer Systems Administrator

**Graduate or Prof. Degree**  
 > Computer and Information Research Scientist

**Student Testimonial**

"This program helped me earn many industry-level certifications including: CompTIA, IT Strata Fundamentals, IC3, Microsoft Technical Associate (MIT), OS Fundamentals, and Security and Academy of Information Technology certifications."  
 Parker Kingsford

### 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 2015-2016, 73 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**

In 2017, Forbes named Utah "cloud computing's new capital." Forbes ranked six Utah tech companies in the top 100 and three of the Utah tech companies were ranked in the top 20—Qualtrics (No.6), Domo (15), Pluralsight (20), Workfront (58), Health Catalyst (64), and InsideSales (92).

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

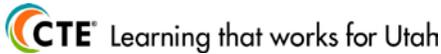
In 2015-2016, 96,190 CTE skill certificates were awarded to high school students. Students' knowledge and performance is demonstrated as part of the Skill Certificate process.

**UtahFutures: College and Career Planning**  
 Visit [UtahFutures.org](http://UtahFutures.org) for salary projections, labor market demand, and training options.

In 2015-2016, the graduation rate for students who concentrated in a CTE Career Pathway was 96.6 percent, compared to Utah's statewide graduation rate of 85 percent.

# Utah Career and Technical Education Career Pathway

## 2017-2018 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 Programming/Software Development Career Pathway choose among the following CTOS, depending upon what is available at their school:  
 FBLA | SkillsUSA | TSA

**Workforce Trends**  
 Demand continues for programmers who can help organizations keep up with changing technology. Prospects are best for those who have the knowledge of various programming languages.  
 In Utah, the average annual employment growth rate for software developers is 5.9 percent through the year 2024.

### Career Cluster: Information Technology

#### Career Pathway: Programming/Software Development

CORE CODE	FOUNDATION COURSES (required)	CREDITS
<b>Choose 1.00 credit from the following courses:</b>		
35.02.00.00.035	Computer Science Principles	1.00
35.02.00.00.030	Computer Programming 1	1.00
35.02.00.00.036	PLTW Computer Science and Software Engineering	1.00
<b>Choose 1.00 credit from the following courses:</b>		
35.02.00.00.041	AP Computer Science	1.00
35.02.00.00.040	Computer Programming 2	1.00
35.02.00.00.007	Exploring Computer Science 1	.50
35.02.00.00.045	Gaming Development Fundamentals	.50
35.02.00.00.048	Mobile Development Fundamentals	.50
<b>ELECTIVE COURSES</b>		
35.02.00.00.052	Algorithms and Data Structures	1.00
35.02.00.00.021	Database Development 1	1.00
32.02.00.00.220	Entrepreneurship	.50
35.02.00.00.008	Exploring Computer Science 2	.50
35.02.00.00.046	Gaming Development Fundamentals 2	.50
35.02.00.00.005	Introduction to Information Technology	.50
41.00.00.00.030	Workplace Skills	.50
<b>3.00 credits for completion</b>		

Foundation courses taken beyond the required credits can be used as elective credit.  
 Visit [UtahCTE.org](http://UtahCTE.org) to learn how to earn industry certification in this Career Pathway.

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**Programming/Software Development is:**  
 > High skill  
 > High wage  
 > High demand

**Sample Occupations Requiring:**  
[High School Diploma](#)  
 > N/A  
[Certificate](#)  
 > N/A  
[Assoc. or Technical Degree](#)  
 > Web Developer  
[Baccalaureate Degree](#)  
 > Career and Technical Education Teacher  
 > Computer Programmer  
 > Computer Systems Analyst  
 > Computer Systems Engineers/Architect  
 > Software Developer  
 > Video Game Designer  
[Graduate or Prof. Degree](#)  
 > Software Engineer

**Student Testimonial**  
 “My goal is to become a video game designer or programmer. The classes I took in high school taught me how to use the programs that I would be using in my career field, and have given me a taste of what programming and design are like.”  
 Jenny Whitecar

### 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.

<b>12th Grade</b>	<b>1-Year Certificate</b>	<b>2-Year Associate or Technical Degree</b>	<b>4-Year Bachelor's Degree</b>	<b>More Graduate or Prof. Degree</b>
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 2015-2016, 73 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**  
 Silicon Slopes was formed to promote Utah's growing technology community and is home to more than 5,000 tech companies that has generated 142,500 jobs.  
 From Ogden to Provo, technology companies dot the landscape. Pluralsight, Insidesales.com, Qualtrics, Vivint, Entrata, HealthCatalyst all started in Utah.

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

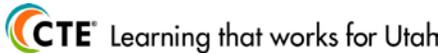
**UtahFutures: College and Career Planning**  
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In 2015-2016, 96,190 CTE skill certificates were awarded to high school students. Students' knowledge and performance is demonstrated as part of the Skill Certificate process.

In 2015-2016, the graduation rate for students who concentrated in a CTE Career Pathway was 96.6 percent, compared to Utah's statewide graduation rate of 85 percent.

# Utah Career and Technical Education Career Pathway

## 2017-2018 School Year



### Career Cluster: Information Technology

#### Career Pathway: Web Development & Administration

CORE CODE	FOUNDATION COURSES (required)	CREDITS	
35.02.00.00.038	Web Development 1	1.00	2.00 credits
<b>Choose 1.00 credit of the following courses:</b>			
32.02.00.00.280	Business Web Page Design	.50	
32.02.00.00.290	Business Web Page Design, Advanced	.50	
35.02.00.00.055	HTML5 App Development Fundamentals	1.00	
35.02.00.00.065	Web Development 2	1.00	
ELECTIVE COURSES			
35.02.00.00.021	Database Development 1	1.00	1.00 credit
37.01.00.00.001	Digital Marketing	.50	
32.02.00.00.220	Entrepreneurship	.50	
35.02.00.00.090	Geographic Information Systems (GIS) Remote Sensing	1.00	
35.02.00.00.005	Introduction to Information Technology	.50	
41.00.00.00.030	Workplace Skills	.50	
<b>3.00 credits for completion</b>			

Foundation courses taken beyond the required credits can be used as elective credit.  
Visit [UtahCTE.org](http://UtahCTE.org) to learn how to earn industry certification in this Career Pathway.

**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.**

#### CTSO Information

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

Students who want to participate in the Web Development and Administration Career Pathway choose among the following CTOS, depending upon what is available at their school:

FBLA | SkillsUSA | TSA

#### Workforce Trends

The World Wide Web has changed the way we communicate and consume information. With more than 1 billion websites the need for Web developers is high.

In Utah, the average annual employment growth rate for Web developers is 5.5 percent and for computer and information systems managers is 4.5 percent through the year 2024.

#### Web Development & Administration is:

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

#### Sample Occupations Requiring:

**High School Diploma**

> N/A

**Certificate**

> N/A

**Assoc. or Technical Degree**

> Web Developer

**Baccalaureate Degree**

- > Career and Technical Education Teacher
- > Computer and Information Systems Manager
- > Computer Programmer
- > Database Administrator
- > Graphic Designer
- > Multimedia Artists and Animators
- > Software Developer

**Graduate or Prof. Degree**

> Web Developer

#### Student Testimonial

"My goal is to go to Utah Valley University and obtain an associate degree in computer technology with the focus on Web design. With the opportunity to receive an associate degree, it would allow me to apply and obtain work at any number of tech businesses across Utah County. CTE courses have provided experience in several areas that would not be available without CTE."

Zachary Crocker

### HIGH SCHOOL TO POSTSECONDARY EDUCATION AND TRAINING

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<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 2015-2016, 73 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

Utah has deep consumer software roots. Ancestry.com, Overstock.com, Backcountry.com, and Vivint.com all started in the Beehive State.

"People in Utah want to contribute. Just walking down the street you can sense the desire to build and create, to make a mark. That kind of 'beehive' energy is exactly what a consumer startup needs . . ." said Chatbooks CEO Nate Quigley. *Silicon Slopes Magazine*, Spring 2017

#### CTE Skill Certificates

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

In 2015-2016, 96,190 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

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In 2015-2016, the graduation rate for students who concentrated in a CTE Career Pathway was 96.6 percent, compared to Utah's statewide graduation rate of 85 percent.