

High School to College and Career Pathway: Secondary Career and Technical Education

Area of Study: Information Technology Education

Pathway: Digital Media

Get the Facts

Digital media programs combine art and technology to present text, images and sound in digital form.

According to the Utah Technology Council, Utah is known as a technology hotspot and is #1 in IT employment growth.

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 almost 3 billion Internet users worldwide and 1 billion websites worldwide the demand for individuals skilled in digital media is high.



CAREER AND TECHNICAL EDUCATION Recommended Pathway Courses

(Students may select individual courses for exploration, or a complete Pathway for an in-depth focus.)

CLASS AVAILABILITY MAY VARY AT YOUR HIGH SCHOOL

Course #	Foundation Courses: (required)	Credit
11.0210	Digital Media	1.00
Choose 1.00 credit from the following courses:		
11.0216	3D Animation	.50
11.0215	3D Graphics	.50
11.0211	Digital Media 2	1.00
Elective Courses:		
50.0407	Basic Digital Photography	.50
52.0254	Business Web Design	.50
50.0402	Commercial and Advertising Art *	.50
50.0401	Design and Visual Communications *	.50
08.9904	Digital Marketing	.50
52.0621	Entrepreneurship	.50
11.0803	Gaming Fundamentals	.50
11.0805	Gaming Fundamentals 2	.50
11.0101	Information Technology, Introduction	.50
10.0301	Introduction to Graphic Communications	.50
10.0201	Television Broadcasting 1	.50
10.0203	Video Production 1	.50
32.0199	Workplace Skills	.50

2.00 credits

1.00 credit

3.00 credits for completion

Digital Media is:

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

Sample Career Occupations

- > 3D Animator
- > Information Technology Education Teacher
- > Instructional Designer
- > Multimedia Artist
- > Multimedia Designer
- > Multimedia Developer
- > Multimedia Engineer
- > Product Manager
- > Web Administrator
- > Web Developer

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

* Course can be taken up to 1.00 credit. | Visit UtahCTE.org to learn how to earn industry certification in this Pathway.

Middle School		State Requirements		High School Suggested Education Plan				College and Career
7th Grade	8th Grade	Middle School	High School	9th Grade Suggested	10th Grade Suggested	11th Grade Suggested	12th Grade Suggested	Beyond High School
Language Arts 7 1.00	Language Arts 8 1.00	2.00	Language Arts 4.00	Language Arts 9 1.00	Language Arts 10 1.00	Language Arts 11 1.00	Language Arts 12 1.00	<p>There are a number of options for education and training beyond high school, depending on your career goals.</p> <ul style="list-style-type: none"> > Certificate > Associate degree > Bachelor's degree > Professional degree > On-the-job training > Apprenticeship > Military training <p>For more information on salary projections, labor market demand, and training options, visit UtahFutures.org.</p>
Math * 1.00	Math * 1.00	2.00	Math 3.00	Math * 1.00	Math * 1.00	Math * 1.00	Computer Programming 1.00	
Science .50	Science 1.00	1.50	Science 3.00	Earth Systems 1.00	Biological Science 1.00	AP Computer Science or AP Comp. Science Principles 1.00		
Utah Studies .50	U.S. History I 1.00	1.50	Social Studies 3.00	Geography for Life .50	World Civilizations .50	U.S. History II 1.00	U.S. Government and Citizenship .50	
P.E. 1.00	Health .50	1.50	P.E./Health 2.00	Participation Skills and Techniques .50	Fitness for Life .50 / Health Education .50 Lifetime Activities or Sport .50			
The Arts .50	The Arts .50	1.00	Fine Arts 1.50	Drawing or Art Foundations II 1.50				
Keyboarding .50	Info. and Comm. Technology .50	.50	Digital Literacy .50	Computer Technology or Exploring Computer Science .50				
College & Career Awareness 1.00	Business Digital Literacy .50	1.00	CTE 1.00	Refer to Career and Technical Education box above.				

> * Talk to your school counselor about math requirements in the core curriculum. Core curriculum and elective requirements may vary district to district.
> Many CTE courses may qualify for concurrent enrollment credit, which in some cases may earn up to 1.0 credit toward Pathway completion. Talk to your school counselor about availability.

> Concurrent enrollment course offerings vary by school and district.
> Many Utah postsecondary programs accept high school courses toward a two- or four-year degree through concurrent enrollment. Check regional postsecondary Pathways for details.

High School to College and Career Pathway: Secondary Career and Technical Education

Area of Study: Information Technology Education

Pathway: Network and IT Support

Get the Facts

The term "computer bug" was coined in the 1940s when an insect got into a relay in a primitive electromechanical computer causing computer malfunctions.

There are approximately 7,000 technology companies in Utah, 5,000 in IT.

Workforce Trends

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

According to the Utah Technology Council, IT occupations account for \$6.9 billion (4.3 percent) of Utah's total payroll.



CAREER AND TECHNICAL EDUCATION Recommended Pathway Courses

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CLASS AVAILABILITY MAY VARY AT YOUR HIGH SCHOOL

Course #	Foundation Courses: (required)	Credit
Choose 2.00 credits from the following courses:		
11.9920	A+ (Computer Maintenance)	1.00
11.0420	Cisco Certified Network Administrator (CCNA)	1.00
11.0101	Information Technology, Introduction	.50
11.9940	Linux Fundamentals	1.00
11.0430	Microsoft Certified Professional (MCP)	1.00
11.0440	Network Fundamentals	.50
Elective Courses:		
11.0410	Certified Linux Administration	1.00
11.0430	Microsoft Certified Professional	1.00
11.0450	Security Fundamentals	.50
32.0199	Workplace Skills	.50

2.00 credits

1.00 credit

3.00 credits for completion

Foundation courses taken beyond the required credits can be used as elective credit. Visit UtahCTE.org to learn how to earn industry certification in this Pathway.

Network and IT Support is:

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

Sample Career Occupations

- > Information Technology Education Teacher
- > LAN Administrator
- > Network Analyst
- > Network Engineer
- > Telecommunication Manager

According to the Utah Department of Workforce Services, the median hourly wage for a network and computer system is \$33.30.

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Language Arts 7 1.00	Language Arts 8 1.00	2.00	Language Arts 4.00	Language Arts 9 1.00	Language Arts 10 1.00	Language Arts 11 1.00	Language Arts 12 1.00	<p>There are a number of options for education and training beyond high school, depending on your career goals.</p> <ul style="list-style-type: none"> > Certificate > Associate degree > Bachelor's degree > Professional degree > On-the-job training > Apprenticeship > Military training <p>For more information on salary projections, labor market demand, and training options, visit UtahFutures.org.</p>
Math * 1.00	Math * 1.00	2.00	Math 3.00	Math * 1.00	Math * 1.00	Math * 1.00	Computer Programming 1.00	
Science .50	Science 1.00	1.50	Science 3.00	Earth Systems 1.00	Biological Science 1.00	AP Computer Science or AP Comp. Science Principles 1.00		
Utah Studies .50	U.S. History I 1.00	1.50	Social Studies 3.00	Geography for Life .50	World Civilizations .50	U.S. History II 1.00	U.S. Government and Citizenship .50	
			General Financial Literacy .50			General Financial Literacy .50		
P.E. 1.00	Health .50	1.50	P.E./Health 2.00	Participation Skills and Techniques .50	Fitness for Life .50 / Health Education .50 Lifetime Activities or Sport .50			
The Arts .50	The Arts .50	1.00	Fine Arts 1.50	Fine Arts Courses 1.50				
Keyboarding .50	Info. and Comm. Technology .50	.50	Digital Literacy .50	Computer Technology or Exploring Computer Science .50				
College & Career Awareness 1.00	Business Digital Literacy .50	1.00	CTE 1.00	Refer to Career and Technical Education box above.				

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High School to College and Career Pathway: Secondary Career and Technical Education

Area of Study: Information Technology Education

Pathway: Programming/Software Development

Get the Facts

A 3D graphics programmer must have a firm grasp of advanced mathematical concepts.

According to the Utah Department of Workforces Services, computer system analysts, database administrators, and computer scientists are projected to be among the fastest growing occupations through the year 2020.

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.



CAREER AND TECHNICAL EDUCATION Recommended Pathway Courses

(Students may select individual courses for exploration, or a complete Pathway for an in-depth focus.)

CLASS AVAILABILITY MAY VARY AT YOUR HIGH SCHOOL

Course #	Foundation Courses: (required)	Credit
Choose 1.00 credit from the following courses:		
11.0204	AP Computer Science Principles	1.00
11.0201	Computer Programming 1	1.00
11.0220	PLTW Computer Science and Software Engineering	1.00
Choose 1.00 credit from the following courses:		
11.0209	AP Computer Science	1.00
11.0202	Computer Programming 2	1.00
11.0301	Database Development 1	1.00
11.0701	Exploring CS	.50
11.0803	Gaming Development Fundamentals	.50
11.0203	Mobile Development Fundamentals	.50
11.0320	PLTW Computer Science Applications	1.00
Elective Courses:		
11.0207	Algorithms and Data Structures	1.00
52.0621	Entrepreneurship	.50
11.0702	Exploring Computer Science 2	.50
11.0805	Gaming Development Fundamentals 2	.50
11.0101	Information Technology, Introduction	.50
32.0199	Workplace Skills	.50

2.00 credits

1.00 credit

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

3.00 credits for completion

Programming/Software Development is:

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

Sample Career Occupations

- > Computer Programmer
- > Computer Systems Analyst
- > Game Programmer
- > Information Technology Education Teacher
- > Software Developer
- > Software Engineer

Visit UtahCTE.org to learn how to earn industry certification in this Pathway.

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Math * 1.00	Math * 1.00	2.00	Math 3.00	Math * 1.00	Math * 1.00	Math * 1.00	Computer Programming 1.00	
Science .50	Science 1.00	1.50	Science 3.00	Earth Systems 1.00	Biological Science 1.00	AP Computer Science or AP Comp. Science Principles 1.00		
Utah Studies .50	U.S. History I 1.00	1.50	Social Studies 3.00	Geography for Life .50	World Civilizations .50	U.S. History II 1.00	U.S. Government and Citizenship .50	
P.E. 1.00	Health .50	1.50	P.E./Health 2.00	Participation Skills and Techniques .50	Fitness for Life .50 / Health Education .50 Lifetime Activities or Sport .50			
The Arts .50	The Arts .50	1.00	Fine Arts 1.50	Fine Arts Courses 1.50				
Keyboarding .50	Info. and Comm. Technology .50	.50	Digital Literacy .50	Computer Technology or Exploring Computer Science .50				
College & Career Awareness 1.00	Business Digital Literacy .50	1.00	CTE 1.00	Refer to Career and Technical Education box above.				

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High School to College and Career Pathway: Secondary Career and Technical Education

Area of Study: Information Technology Education

Pathway: Web Development and Administration

Get the Facts

The American Institute of Graphic Arts reports that nine out of 10 artists have a college degree, most with a major in graphic design.

Workforce Trends

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

According to the Utah Department of Workforce Services, the median hourly wage for an experienced Web developer is \$24.80.



CAREER AND TECHNICAL EDUCATION Recommended Pathway Courses

(Students may select individual courses for exploration, or a complete Pathway for an in-depth focus.)

CLASS AVAILABILITY MAY VARY AT YOUR HIGH SCHOOL

Course #	Foundation Courses: (required)	Credit
11.0230	Web Development 1	1.00
Choose 1.00 credit of the following courses:		
11.0804	HTML5 App Development Fundamentals	1.00
11.0801	Web Development 2	1.00
Elective Courses:		
52.0264	Business Web Page Design, Advanced	.50
11.0301	Database Development 1	1.00
08.9904	Digital Marketing	.50
52.0621	Entrepreneurship	.50
45.0702	Geographic Information Systems (GIS) Remote Sensing	1.00
11.0101	Information Technology, Introduction	.50
32.0199	Workplace Skills	.50

1.50 credits

1.50 credits

3.00 credits for completion

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Web Development and Administration is:

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

Sample Career Occupations

- > Internet Project Manager
- > Information Technology Education Teacher
- > Webmaster
- > Web Administrator
- > Web Developer
- > Web Graphic Designer
- > Web Programmer/Analyst

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Science .50	Science 1.00	1.50	Science 3.00	Earth Systems 1.00	Biological Science 1.00	AP Computer Science or AP Comp. Science Principles 1.00		
Utah Studies .50	U.S. History I 1.00	1.50	Social Studies 3.00	Geography for Life .50	World Civilizations .50	U.S. History II 1.00	U.S. Government and Citizenship .50	
			General Financial Literacy .50			General Financial Literacy .50		
P.E. 1.00	Health .50	1.50	P.E./Health 2.00	Participation Skills and Techniques .50	Fitness for Life .50 / Health Education .50 Lifetime Activities or Sport .50			
The Arts .50	The Arts .50	1.00	Fine Arts 1.50	Fine Arts Courses 1.50				
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