



Career Cluster: Computer Science & Information Technology


Career Pathway: Cybersecurity

JUNIOR HIGH / MIDDLE SCHOOL		
College and Career Awareness		
Computer Science Investigations	Creative Coding	
HIGH SCHOOL		
SUPPORTING COURSES: Suggested high school courses that support the Career Pathway (Courses DO NOT count towards the Pathway)		
Current Issues	Math 1050	Secondary Math 2
Law Enforcement *	Photography	Secondary Math 3
EXPLORER COURSES: Choose one or more of the following courses.		
Computer Programming 1 *	Exploring Computer Science	
Computer Science Principles 1 *	Information Technology, Intro *	
Database Development *	Web Development 1 *	
CONCENTRATOR COURSES: To be a concentrator you must pass one of the following courses AND one explorer course.		
Principles of Cyber Defense and Ethics *	Linux Fundamentals *	
COMPLETER COURSES: To be a completer you must pass a concentrator course and enough courses to equal 3.0 credits in this Pathway.		
Cybersecurity Forensics *		
CTE Internship		
POSTSECONDARY:		
Utah System of Higher Education: ushe.edu (Utah's public colleges and universities)		UtahMajors.org: Majors Guide

* concurrent enrollment course + recommended explorer course

HIGH SCHOOL TO POSTSECONDARY EDUCATION AND TRAINING

There are several options for education and training beyond high school, depending on your career goals.

	1-2 Year Certificate	2-Year Associate Degree	4-Year Bachelor's Degree
	N/A	> Computer Network Support Specialist	> CTE Teacher > Computer and Information Systems Managers > Computer Programmers

Utah CTE classes are open to all qualified students without regard to race, color, national origin, sex, disability, or age.

Student Testimonial

“Getting a degree will help me to pursue my goal of working as a computer programmer at a large company. CTE classes prepared me by showing me what I would actually be doing in the different job fields and how I would apply the information that I learned in class.”

Aaron Montoya
 Jordan High School

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Computer Science & Information Technology

UtahCTE.org: [Fact Sheet](#)

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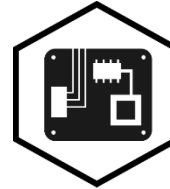
are the Career and Technical Student Organizations (CTSO) for students in the Cybersecurity Career Pathway.

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Utah Career and Technical Education
 Career Pathway Chart
 2021-2022 School Year



Information Technology Systems
 CAREER PATHWAY
 Computer Science & Information Technology
 CAREER CLUSTER

Career Cluster: Computer Science & Information Technology

Career Pathway: Information Technology Systems

JUNIOR HIGH / MIDDLE SCHOOL		
College and Career Awareness		
Computer Science Investigations	Creative Coding	
HIGH SCHOOL		
SUPPORTING COURSES: Suggested high school courses that support the Career Pathway (Courses DO NOT count towards the Pathway)		
Math 1050	Secondary Math 2	Secondary Math 3
EXPLORER COURSES: Choose one or more of the following courses.		
CISCO Certified Networking Associate	Exploring Computer Science	
Computer Programming 1 *	Information Technology, Intro *	Web Development 1 *
Computer Science Principles 1 *	Microsoft Certified Professional *	
Database Development *	Robotics 1	Robotics Technology
CONCENTRATOR COURSES: To be a concentrator you must pass the following course AND one explorer course.		
Computer Systems 1	Cloud Computing 1	Geographical Information Systems, Intro
COMPLETER COURSES: To be a completer you must pass a concentrator course and enough courses to equal 3.0 credits in this Pathway.		
Computer Systems 2	Cloud Computing 2	Geographic Information Systems Remote Sensing *
Network Fundamentals *		
CTE Internship		
POSTSECONDARY:		
Utah System of Higher Education: ushe.edu (Utah's public colleges and universities)		UtahMajors.org: Majors Guide

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HIGH SCHOOL TO POSTSECONDARY EDUCATION AND TRAINING

There are several options for education and training beyond high school, depending on your career goals.

	1-2 Year Certificate	2-Year Associate Degree	4-Year Bachelor's Degree
	N/A	> Computer Network Support Specialist	> CTE Teacher > Computer Network Architect > Computer and Information Systems Manager

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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
 West Jordan High School

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Career Cluster: Computer Science & Information Technology


Career Pathway: Programming & Software Development

JUNIOR HIGH / MIDDLE SCHOOL		
College and Career Awareness		
Computer Science Investigations	Python 1, Intro	
Creative Coding	Python 2, Intro	
Digital Literacy		
HIGH SCHOOL		
SUPPORTING COURSES: Suggested high school courses that support the Career Pathway (Courses DO NOT count towards the Pathway)		
Leadership Principles 1 *	Physics	Secondary Math 3
Math 1050	Secondary Math 2	
EXPLORER COURSES: Choose one or more of the following courses.		
AP Computer Science Principles	Robotics 1	Robotics Technology
Computer Programming 1 *	Database Development *	Game Development Fundamentals 1
Computer Science Principles *	Exploring Computer Science	Information Technology, Intro
CONCENTRATOR COURSES: To be a concentrator you must pass one of the following courses AND one explorer course.		
Computer Programming 2 *	Game Development Fundamentals 2	Mobile Development Fundamentals
COMPLETER COURSES: To be a completer you must pass a concentrator course and enough courses to equal 3.0 credits in this Pathway.		
AP Computer Science	Algorithms and Data Structures *	Computer Programming, Advanced *
CTE Internship		
POSTSECONDARY:		
Utah System of Higher Education: ushe.edu (Utah's public colleges and universities)		UtahMajors.org: Majors Guide

* concurrent enrollment course + recommended explorer course

HIGH SCHOOL TO POSTSECONDARY EDUCATION AND TRAINING

There are several options for education and training beyond high school, depending on your career goals.

	1-2 Year Certificate	2-Year Associate Degree	4-Year Bachelor's Degree
	N/A	> Web Developer	> CTE Teacher > Computer Programmer > Computer Systems Analyst

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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 pursuing in my career field and have given me a taste of what programming and design are like."

Jenny Whitecar
 Syracuse High School

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are the Career and Technical Student Organizations (CTSO) for students in the Programming & Software Development Career Pathway.

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Career Cluster: Computer Science & Information Technology

Career Pathway: Web Development

JUNIOR HIGH / MIDDLE SCHOOL			
College and Career Awareness			
Computer Science Investigations	Creative Coding		
SUPPORTING COURSES: Suggested high school courses that support the Career Pathway (Courses DO NOT count towards the Pathway)			
Leadership Principles 1 *	Secondary Math 2	World Civilization	
Math 1050	Secondary Math 3	World Geography	
EXPLORER COURSES: Choose one or more of the following courses.			
Computer Science Principles 1 *	Digital Graphic Arts Intro *	Exploring Computer Science	Web Development 1 *
Database Development *	Entrepreneurship *	Information Technology, Intro *	
CONCENTRATOR COURSES: To be a concentrator you must pass one of the following courses AND one explorer course.			
HTML 5 Application Development Fundamentals *			
Web Development 2			
COMPLETER COURSES: To be a completer you must pass a concentrator course and enough courses to equal 3.0 credits in this Pathway.			
UX/UI and Quality Assurances (Course under development. Available SY 2022-2023.)			
Web Development Capstone			
CTE Internship			
POSTSECONDARY:			
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There are several options for education and training beyond high school, depending on your career goals.			
	1-2 Year Certificate	2-Year Associate Degree	4-Year Bachelor's Degree
	N/A	> Web Developer	> CTE Teacher > Computer and Information Systems Manager > Computer Programmer > Database Administrator

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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. CTE courses have provided experience in several areas that would not be available without CTE."

Zachary Crocker
 Springville High School

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are the Career and Technical Student Organizations (CTSO) for students in the Web Development Career Pathway.

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