



Career Cluster: Digital Technology

Career Pathway: Programming & Software Development

JUNIOR HIGH / MIDDLE SCHOOL			
College and Career Awareness			
Computer Science Investigations	Digital Literacy	Python 2, Intro	
Creative Coding	Python 1, Intro	Robotics Technology	
HIGH SCHOOL			
SUPPORTING COURSES: Suggested high school courses that support the Career Pathway (Courses DO NOT count towards the Pathway)			
Entrepreneurship *	Physics *	Secondary Math 2	Secondary Math 3
EXPLORER COURSES: Choose one or more of the following courses.			
3D Print Technology	Computer Science Principles (AP) *	Exploring Computer Science *	Robotics 1
AR/VR * + (Augmented Reality and Virtual Reality)	Data Analytics *	IT and Cybersecurity, Intro *	UAS: Drones, Intro *
Computer Programming 1 *	Data Science	Math 1050 *	Web Development 1 *
Computer Science Principles *	Engineering Principles 1	Mobile Development Fundamentals	
CONCENTRATOR COURSES: To be a concentrator you must pass one of the following courses AND one explorer course.			
Computer Programming 2 *	Computer Science HL 1 (IB)	Database Development *	
Computer Science A (AP)	Computer Science SL 1 (IB)	Game Development Fundamentals 1	
COMPLETER COURSES: To be a completer you must pass a concentrator course and enough courses to equal 3.0 credits in this Pathway.			
Algorithms and Data Structures *	Computer Science HL 2 (IB)	Game Development Fundamentals 2	
Computer Programming, Advanced *	Computer Science SL 2 (IB)		
Computer Programming Capstone	Engineering Capstone		
CTE Internship		Apprenticeship	
POSTSECONDARY: There are many options for education and training beyond high school.			
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.

	Certificate	2-Year Associate Degree	4-Year Bachelor's Degree
	> Entry Level Programmer	> Computer Systems Analyst > Game Play Programmer > Software Developer	> CTE Teacher > Software Engineer > Sys. Software Programmer

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. [Credentials of Value](#)

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

Advice to Students

"I would highly recommend the CTE Pathway program to students. It is a great opportunity to earn college credit at a much more affordable price and gives you an advantage over anyone graduating from a traditional pathway."

Jaren Woodbury
Future Software Developer

LEARN MORE ABOUT OCCUPATIONS AND WAGES

Digital Technology

Department of Workforce Services
[Utah Occupational Explorer](#)

FBLA | SkillsUSA | TSA

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

[FBLA-PBL.org](#) | [SkillsUSA.org](#) | [TSAweb.org](#)
[Utah-FBLA-PBL.org](#) | [UtahSkillsUSA.org](#) | [UtahTSA.org](#)
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