

Programming & Software Development CAREER PATHWAY

Computer Science & Information Technology CAREER CLUSTER

## **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)						
Business Leadership 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 *	Mobile Development Fundamentals					
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 *	Database Development *		Game Development Fundamentals 1			
<b>COMPLETER COURSES</b> : To be a completer you must pass a concentrator course and enough courses to equal 3.0 credits in this Pathway.						
AP Computer Science		Computer Programming, Advanced *				
Algorithms and Data Structures *		Game Development Fundamentals 2				
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.

er more	1-2 Year Certificate	2-Year Associate Degree	4-Year Bachelor's Degree
	> Entry Level Programmer	<ul> <li>&gt; Computer Systems Analyst</li> <li>&gt; Game Play Programmer</li> <li>&gt; Software Developer</li> </ul>	<ul> <li>&gt; CTE Teacher</li> <li>&gt; Software Engineer</li> <li>&gt; Sys Software Programmer</li> </ul>

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. <u>Credentials of Value</u>

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

### **Student Testimonial**

"CTE courses have set the course of my life. I was planning on doing something computer related and taking CTE courses have led me to understand what I am confident about, what I enjoy doing, and what possible careers I could go into."

> James Cox Future IT Developer

#### LEARN MORE ABOUT OCCUPATIONS AND WAGES

# Computer Science & Information Technology

UtahCTE.org: Fact Sheet

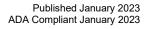
Department of Workforce Services Utah Occupational Explorer

CTE<sup>®</sup> Learning that works for Utah

## 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



112003-KY