



## Career Cluster: Computer Science & Information Technology


# Career Pathway: Programming & Software Development

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

\* 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
	> Entry Level Programmer	> Computer Systems Analyst > Game Play Programmer > Software Developer	> CTE Teacher > Software Engineer > Sys Software Programmer

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

### 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

### LEARN MORE ABOUT OCCUPATIONS AND WAGES

#### Computer Science & Information Technology

UtahCTE.org: [Fact Sheet](#)

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](#)

Utah FBLA flyer | SkillsUSA flyer | Utah TSA flyer