



High School to College and Career Pathway: Secondary

Area of Study: Information Technology Education

Pathway: Programming/Software Development

Middle School		State Requirements			High School Suggested Education Plan				College & Careers																													
7 th Grade	8 th Grade	Middle School	High School	9 th Grade Suggested	10 th Grade Suggested	11 th Grade Suggested	12 th Grade Suggested	Beyond High School																														
Language Arts 7 1.00	Language Arts 8 1.00	2.00	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>Programming/Software Development is:</p> <ul style="list-style-type: none"> > High skill > High wage > High demand > Nontraditional for females <p>Sample Occupations</p> <ul style="list-style-type: none"> > Computer Programmer > Computer Systems Analyst > Game Programmer > Information Technology Education Teacher > Software Engineer <p>For more information on salary projections, labor market demand, and training options, visit www.utahfutures.org.</p>																														
Pre-Algebra 1.00	Elem. Algebra or Applied Math 1.00	2.00	3.00	Geometry or Applied Math II 1.00	Intermediate Algebra 1.00	Computer Programming 1.00																																
Science .50	Science 1.00	1.50	3.00	Earth Systems 1.00	Biological Science 1.00	Additional credit 1.00																																
Utah Studies .50	U.S. History I 1.00	1.50	2.50	Geography for Life .50	World Civilizations .50	U.S. History II 1.00	U.S. Government and .50																															
P.E. 1.00	Health .50	1.50	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	1.50	Fine Arts Courses 1.50																																		
			.50			Financial Literacy .50																																
Keyboarding .50			.50	Computer Technology .50																																		
CTE Intro 1.00		1.00	1.00	<p>Career and Technical Education Recommended Pathway Courses</p> <p>(Students may select individual courses for exploration, or a complete Pathway for an in-depth focus.)</p> <p>CLASS AVAILABILITY MAY VARY AT YOUR HIGH SCHOOL</p> <table border="1"> <thead> <tr> <th>Course #</th> <th>Foundation Courses: (required)</th> <th>Credit</th> </tr> </thead> <tbody> <tr> <td>11.0201</td> <td>Computer Programming I</td> <td>1.00</td> </tr> <tr> <td colspan="3">Choose one of the following courses:</td> </tr> <tr> <td>11.0202</td> <td>Computer Programming II</td> <td>1.00</td> </tr> <tr> <td>11.0301</td> <td>Database Development I</td> <td>1.00</td> </tr> <tr> <td colspan="3">Elective Courses:</td> </tr> <tr> <td>11.0101</td> <td>Information Technology, Introduction</td> <td>.50</td> </tr> <tr> <td>11.0210</td> <td>Digital Media I</td> <td>1.00</td> </tr> <tr> <td>11.0230</td> <td>Web Development I</td> <td>1.00</td> </tr> <tr> <td>32.0199</td> <td>Student Internship (Critical Workplace Skills)</td> <td>.50</td> </tr> </tbody> </table> <p>2.00 credits (for Foundation and Elective courses)</p> <p>1.00 credit (for Student Internship)</p> <p>3.00 credits for completion</p>					Course #	Foundation Courses: (required)	Credit	11.0201	Computer Programming I	1.00	Choose one of the following courses:			11.0202	Computer Programming II	1.00	11.0301	Database Development I	1.00	Elective Courses:			11.0101	Information Technology, Introduction	.50	11.0210	Digital Media I	1.00	11.0230	Web Development I	1.00	32.0199	Student Internship (Critical Workplace Skills)	.50
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<p>Workforce Trends Demand for programmers to help organizations keep up with changing technology will continue. Prospects should be best for college graduates with knowledge of various programming languages and tools; those with less formal education or work experience should face keen competition.</p> <p>Get the Facts A 3D graphics programmer must have a firm grasp of advanced mathematical concepts.</p>		<p>Core Curriculum and elective requirements may vary district to district. Check with your school counselor.</p> <p>Concurrent enrollment course offerings vary by school and district.</p> <p>Foundation courses taken beyond the required credits can be used as elective credit.</p>		<p>Many Utah post-secondary programs accept high school courses toward a two- or four-year degree through concurrent enrollment. Check regional post-secondary Pathways for details.</p>																																		

Note: For more information, talk to your school counselor.