



# Programming and Software Development Pathway Information Technology Career Cluster



This Program of Study plan should serve as a guide in the development of secondary and post-secondary course planning for students. Courses listed within this plan are only recommended and are indicative of the courses needed to complete a Program of Study. The following items need to be considered:

- Courses in the arts and humanities are valued by post-secondary institutions for their cognitive benefits and in communicating and expressing the ideas and emotions of the human spirit.
- Post-secondary institutions have varying course requirements for admission including World Languages.

High School	Grade	English	Math	Science	Social Studies	Other Required Courses	Pathway Electives Recommended	Credit Review	
	Required Credits	4.0	3.0	3.0	3.0	2.0	Recommended Sequence for Pathway ( <i>may adjust yearly as needed</i> ) [Minimum– 8.5 elective credits needed for graduation]	Grade	Graduation Credit Requirements
	<b>Grade 9</b>	<ul style="list-style-type: none"> <li>English 9 (1.0)</li> <li>-OR-</li> <li>Enriched English 9 (1.0)</li> </ul>	<ul style="list-style-type: none"> <li>Algebra I (1.0)</li> </ul>	<ul style="list-style-type: none"> <li>Earth Science (0.5)</li> </ul>	<ul style="list-style-type: none"> <li>US History (0.5)</li> </ul>	<ul style="list-style-type: none"> <li>Level I Physical Education (0.5)</li> <li>Health 9 (0.5)</li> </ul>	<ul style="list-style-type: none"> <li>Microsoft Office Suite (TC) (0.5)</li> <li>Cartoon Animation (0.5)</li> </ul>	<ul style="list-style-type: none"> <li>9-12</li> <li>9-12</li> </ul>	4.0 Required 2.0 Elective 6.0 Total
	<b>Grade 10</b>	<ul style="list-style-type: none"> <li>English 10 (1.0)</li> <li>-OR-</li> <li>Enriched English 10 (1.0)</li> </ul>	<ul style="list-style-type: none"> <li>Geometry (1.0)</li> <li>-OR-</li> <li>Enriched Geometry (1.0)</li> </ul>	<ul style="list-style-type: none"> <li>Biology (1.0)</li> </ul>	<ul style="list-style-type: none"> <li>World Studies (1.0)</li> <li>-OR-</li> <li>AP European Studies (1.0)</li> </ul>	<ul style="list-style-type: none"> <li>Level II Physical Education (0.5)</li> </ul>	<ul style="list-style-type: none"> <li>Digital Electronics (TC) (1.0)</li> <li>Video Game Development (1.0)</li> <li>Introduction to Computer Science (0.5)</li> </ul>	<ul style="list-style-type: none"> <li>10-12</li> <li>9-12</li> <li>9-12</li> </ul>	4.5 Required 1.5 Elective 6.0 Total
	<b>Grade 11</b>	<ul style="list-style-type: none"> <li>English 11 (1.0)</li> <li>-OR-</li> <li>AP Language &amp; Composition (1.0)</li> </ul>	<ul style="list-style-type: none"> <li>Algebra II (1.0)</li> <li>-OR-</li> <li>Enriched Algebra II/Trigonometry (1.0)</li> </ul>	<ul style="list-style-type: none"> <li>Any elective that satisfies the Physical Science graduation requirement</li> </ul>	<ul style="list-style-type: none"> <li>Government (0.5)</li> <li>-OR-</li> <li>AP United States Government and Politics (0.5)</li> </ul>	<ul style="list-style-type: none"> <li>Level III Physical Education (0.5)</li> </ul>	<ul style="list-style-type: none"> <li>Computer Hardware (TC) (0.75)</li> <li>Operating Systems (TC) (0.5)</li> <li>Web Design Applications I (0.5)</li> <li>Computer Integrated Manufacturing (TC) (1.0)</li> </ul>	<ul style="list-style-type: none"> <li>9-12</li> <li>9-12</li> <li>9-12</li> <li>10-12</li> </ul>	4.0 Required 2.0 Elective 6.0 Total
	<b>Grade 12</b>	<ul style="list-style-type: none"> <li>English 12 (1.0)</li> <li>-OR-</li> <li>AP Literature &amp; Composition (1.0)</li> </ul>	<ul style="list-style-type: none"> <li>Precalculus (1.0)</li> <li>-OR-</li> <li>AP Statistics (1.0)</li> </ul>	<ul style="list-style-type: none"> <li>See post-secondary education institution for science requirements</li> </ul>	<ul style="list-style-type: none"> <li>Sociology/Social Issues (0.5)</li> <li>Psychology (0.5)</li> <li>-OR-</li> <li>AP Psychology (1.0)</li> <li>AP Economics (0.5)</li> <li>-OR-</li> <li>Economics (0.5)</li> </ul>		<ul style="list-style-type: none"> <li>Preparation for College &amp; Business Communications (1.0)</li> <li>Personal Law (0.5)</li> </ul>	<ul style="list-style-type: none"> <li>11-12</li> <li>11-12</li> </ul>	2.5 Required 3.0 Elective 5.5 Total
<b>Course Code Key (see course catalog for further details)</b>		<b>28 Credits Possible</b>			<b>Other Related Courses and Activities (curricular, co-curricular, and extra-curricular)</b>				
AP Advanced Placement AS Advanced Standing TC Transcribed Credit YO Youth Options (0.5) Course is worth 0.5 credit (0.75) Course is worth 0.5 credit (non-TC) or 0.75 credit (TC) (1.0) Course is worth 1.0 credit		<b>Credits</b> Required Grades 9-12 ..... 15.0 Minimum Electives..... 8.5 <b>Credits for Graduation ..... 23.5</b>			<ul style="list-style-type: none"> <li>Introduction to Engineering Design (TC) (1.0)</li> <li>Information Technology Youth Apprenticeship (1.0/yr)</li> <li>Architectural Design (1.0)</li> <li>Digital Electronics (1.0)</li> <li>Principles of Engineering (1.0)</li> <li>World Languages</li> <li>Skills USA</li> <li>FBLA</li> <li>Entrepreneurship (TC) (0.5)</li> <li>Accounting I (0.5)</li> </ul>				



# Programming and Software Development Pathway Information Technology Career Cluster



Advisement provided through Student Services office and post-secondary transfer credits determined by college admissions counselors.

Postsecondary credit transfer information also available at <http://www.uwsa.edu/tis>

*Please visit the web site of institutions listed below for any program updates.*

<b>Post-Secondary Options</b>	Baccalaureate Degree		Associate Degree Programs		Certificate/License
	<u>University of Wisconsin – Eau Claire</u> <ul style="list-style-type: none"> <li>• Computer Science</li> <li>• Computer Science – Software Engineering</li> </ul>	<u>University of Minnesota – Twin Cities</u> <ul style="list-style-type: none"> <li>• Computer Science (BS)</li> </ul>	<u>Chippewa Valley Technical College</u> <ul style="list-style-type: none"> <li>• Information Technology-Network Specialist</li> <li>• Information Technology-Programmer/Analyst</li> </ul>		<u>University of Wisconsin – Madison</u> <ul style="list-style-type: none"> <li>• Computer Science Certificate</li> </ul>
	<u>University of Wisconsin – Madison</u> <ul style="list-style-type: none"> <li>• Computer Science</li> </ul>				
	Adult Apprenticeship, On-the-Job Training or Other		Employment Options		
		<b>Careers</b>	<ul style="list-style-type: none"> <li>• Applications Analyst</li> <li>• Applications Engineer</li> <li>• Business Analyst</li> <li>• Computer Engineer</li> <li>• Data Modeler</li> <li>• Game Developer</li> <li>• Operating System Designer/Engineer</li> </ul>	<ul style="list-style-type: none"> <li>• Program Manager</li> <li>• Programmer</li> <li>• Programmer Analyst</li> <li>• Project Lead</li> <li>• Software Applications Specialist</li> <li>• Software Applications Tester</li> </ul>	<ul style="list-style-type: none"> <li>• Software Design Engineer</li> <li>• Systems Administrator</li> <li>• Systems Analyst</li> <li>• Test Engineer</li> <li>• Tester</li> </ul>