



# Power, Structural and Technical Systems Pathway

## Agriculture, Food, and Natural Resources 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 (may adjust yearly as needed) [Minimum– 8.5 elective credits needed for graduation]	Grade	Graduation Credit Requirements
Grade 9	<ul style="list-style-type: none"> <li>English 9 (1.0) -OR- 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>Recreational Small Engines (0.5)</li> <li>Construction I (0.5)</li> <li>Metals/Welding I (1.0)</li> </ul>	<ul style="list-style-type: none"> <li>9-12</li> <li>9-12</li> <li>9-12</li> </ul>	<ul style="list-style-type: none"> <li>4.0 Required</li> <li>2.0 Elective</li> <li>6.0 Total</li> </ul>	
Grade 10	<ul style="list-style-type: none"> <li>English 10 (1.0) -OR- Enriched English 10 (1.0)</li> </ul>	<ul style="list-style-type: none"> <li>Geometry (1.0) -OR- 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) -OR- 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>Introduction Electricity &amp; Wiring (0.5)</li> <li>Choose at least one of the following courses based on career area of interest:                             <ul style="list-style-type: none"> <li>Horticulture A (0.5)</li> <li>Small Animals (0.5)</li> <li>Wildlife Management I (0.5)</li> <li>Veterinary Science I (0.5)</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>9-11</li> <li>9-12</li> <li>10-12</li> <li>9-12</li> <li>9-12</li> </ul>	<ul style="list-style-type: none"> <li>4.5 Required</li> <li>1.5 Elective</li> <li>6.0 Total</li> </ul>	
Grade 11	<ul style="list-style-type: none"> <li>English 11 (1.0) -OR- AP Language &amp; Composition (1.0)</li> </ul>	<ul style="list-style-type: none"> <li>Algebra II/ Trigonometry (1.0) -OR- Enriched Algebra II/Trigonometry (1.0)</li> </ul>	<ul style="list-style-type: none"> <li>Chemistry (1.0)</li> </ul>	<ul style="list-style-type: none"> <li>Government (0.5) -OR- 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>Auto Mechanics I (1.0)</li> <li>Introduction to Engineering Design (IED) (TC) (1.0)</li> </ul>	<ul style="list-style-type: none"> <li>11-12</li> <li>9-12</li> </ul>	<ul style="list-style-type: none"> <li>4.0 Required</li> <li>2.0 Elective</li> <li>6.0 Total</li> </ul>	
Grade 12	<ul style="list-style-type: none"> <li>English 12 (1.0) -OR- AP Literature &amp; Composition (1.0)</li> </ul>	<ul style="list-style-type: none"> <li>See post-secondary institution for math requirements [Recommended that students take a fourth year of math]</li> </ul>	<ul style="list-style-type: none"> <li>Physics (1.0) -OR- AP Physics C: Mechanics (1.0)</li> </ul>	<ul style="list-style-type: none"> <li>AP Psychology (1.0) -OR- Psychology (0.5) -OR- Sociology/Social Issues (0.5)</li> <li>AP Economics (0.5) -OR- Economics (0.5)</li> </ul>	<ul style="list-style-type: none"> <li>Auto Mechanics II (1.0)</li> <li>Grammar and Usage (0.5) -OR- Preparation for College and Business Communications (1.0)</li> </ul>	<ul style="list-style-type: none"> <li>12</li> <li>10-12</li> <li>11-12</li> </ul>	<ul style="list-style-type: none"> <li>2.5 Required</li> <li>3.0 Elective</li> <li>5.5 Total</li> </ul>		
<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 (Chippewa Valley Technical College) TC Transcribed Credit (Chippewa Valley Technical College) YO Youth Options (0.5) Course is worth 0.5 credit (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>Vehicle Care (0.5)</li> <li>Principles of Engineering (POE) (TC) (1.0)</li> <li>World Languages through level III (1.0 each)</li> <li>Welding II (TC in progress) (1.0)</li> <li>FFA</li> <li>Skills USA</li> </ul>				



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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.*

Post-Secondary Options	Associate Degree Programs		
	Baccalaureate Degree		Certificate/License
	<p><u>University of Wisconsin - River Falls</u></p> <ul style="list-style-type: none"> <li>• Agricultural Engineering Technology</li> </ul>	<p><i>Sample programs are listed below and to the right. Consult the Technical College offerings in the area of Wisconsin where you plan to live. See: <a href="http://www.wtcsystem.edu/">http://www.wtcsystem.edu/</a></i></p> <p><u>Chippewa Valley Technical College</u></p> <ul style="list-style-type: none"> <li>• Diesel and Heavy Equipment Technician</li> </ul> <p><u>Fox Valley Technical College</u></p> <ul style="list-style-type: none"> <li>• Agriculture Power Equipment</li> <li>• Diesel Equipment Technology</li> </ul> <p><u>Gateway Technical College</u></p> <ul style="list-style-type: none"> <li>• Diesel Equipment Technology</li> <li>• HVAC (Wind Energy Program)</li> </ul> <p><u>Madison Area Technical College</u></p> <ul style="list-style-type: none"> <li>• Agricultural Equipment Technology</li> <li>• Diesel and Heavy Equipment Technician</li> <li>• Diesel Equipment Technology</li> </ul>	<p><u>Mid-State Technical College</u></p> <ul style="list-style-type: none"> <li>• Diesel and Heavy Equipment Technician</li> </ul> <p><u>Northeast Wisconsin Technical College</u></p> <ul style="list-style-type: none"> <li>• Diesel and Heavy Equipment Technician</li> <li>• Diesel Equipment Technology</li> </ul> <p><u>Southwest Wisconsin Technical College</u></p> <ul style="list-style-type: none"> <li>• Agricultural Power and Equipment Technician</li> </ul> <p><u>Western Technical College</u></p> <ul style="list-style-type: none"> <li>• Diesel and Heavy Equipment Technician</li> </ul> <p><u>Wisconsin Indianhead Technical College</u></p> <ul style="list-style-type: none"> <li>• Agricultural Power and Equipment Technician</li> </ul>
Adult Apprenticeship, On-the-Job Training or Other	Employment Options		
	<p><b>Careers</b></p> <p><u>Certificate or Associate Degree</u></p> <ul style="list-style-type: none"> <li>• Communication Technician</li> <li>• Database Administrator</li> <li>• Electronic Systems Technician</li> <li>• Equipment/Parts Manager</li> <li>• GPS Technician</li> <li>• Heavy Equipment Maintenance Technician</li> </ul>	<p><u>Certificate or Associate Degree</u></p> <ul style="list-style-type: none"> <li>• Information Lab Specialist</li> <li>• Machine Operator</li> <li>• Machinist</li> <li>• Recycling Technician</li> <li>• Remote Sensing Specialist</li> <li>• Welder</li> </ul>	<p><u>Bachelor's Degree</u></p> <ul style="list-style-type: none"> <li>• Agricultural Applications Software Developer/Programmer</li> <li>• Agricultural Educator</li> <li>• Agricultural Engineer</li> <li>• Waste Water Treatment Plant Operator</li> </ul>