

Engineering Technology Pathway

Science, Technology, Engineering & Mathematics 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.

Grade	English	Math	Science	Social Studies	Other Required Courses	Pathway Electives Recommended	Credit Review
	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"> English 9 (1.0) -OR- Enriched English 9 (1.0) 	<ul style="list-style-type: none"> Algebra I (1.0) 	<ul style="list-style-type: none"> Earth Science (0.5) 	<ul style="list-style-type: none"> US History (0.5) 	<ul style="list-style-type: none"> Level I Physical Education (0.5) Health 9 (0.5) 	<ul style="list-style-type: none"> Introduction to Engineering Design (1.0) 	9-12 4.0 Required <u>2.0</u> Elective 6.0 Total
Grade 10	<ul style="list-style-type: none"> English 10 (1.0) -OR- Enriched English 10 (1.0) 	<ul style="list-style-type: none"> Geometry (1.0) -OR- Enriched Geometry (1.0) -AND- Algebra II/Trigonometry (1.0) -OR- Enriched Algebra II/Trigonometry (1.0) 	<ul style="list-style-type: none"> Biology (1.0) 	<ul style="list-style-type: none"> World Studies (1.0) -OR- AP European Studies (1.0) 	<ul style="list-style-type: none"> Level II Physical Education (0.5) 	<ul style="list-style-type: none"> Digital Electronics (1.0) Choose from the following: Metals/Welding I (1.0) Construction I (0.5) Computer Integrated Manufacturing (TC) (1.0) Woodworking I (1.0) Introduction to Electricity & Wiring (0.5) 	10-12 9-12 9-12 10-12 9-12 9-12 4.5 Required <u>1.5</u> Elective 6.0 Total
Grade 11	<ul style="list-style-type: none"> English 11 (1.0) -OR- AP Language & Composition (1.0) 	<ul style="list-style-type: none"> Precalculus (1.0) -OR- Enriched Precalculus (1.0) 	<ul style="list-style-type: none"> Chemistry (1.0) 	<ul style="list-style-type: none"> Government (0.5) -OR- AP United States Government and Politics (0.5) 	<ul style="list-style-type: none"> Level III Physical Education (0.5) 	<ul style="list-style-type: none"> Principles of Engineering (1.0) Aerospace Engineering (1.0) Civil Engineering & Architecture (1.0) 	11-12 10-12 10-12 4.0 Required <u>2.0</u> Elective 6.0 Total
Grade 12	<ul style="list-style-type: none"> English 12 (1.0) -OR- AP Literature & Composition (1.0) 	<ul style="list-style-type: none"> AP Calculus AB (1.0) 	<ul style="list-style-type: none"> Physics (1.0) -OR- AP Physics C: Mechanics (1.0) 	<ul style="list-style-type: none"> AP Psychology (1.0) -OR- Psychology (0.5) -OR- Sociology/Social Issues (0.5) AP Economics (0.5) -OR- Economics (0.5) 			2.5 Required <u>3.0</u> Elective 5.5 Total
Course Code Key (see course catalog for further details)		28 Credits Possible		Other Related Courses and Activities (curricular, co-curricular, and extra-curricular)			
AP	Advanced Placement	(0.75) Course is worth 0.5 credit (non-TC) or 0.75 credit (TC)	Credits	<ul style="list-style-type: none"> AP Calculus BC (1.0) AP Biology (1.0) AP Physics C: Electricity & Magnetism (1.0) STEM Youth Apprenticeship (1.0) 	<ul style="list-style-type: none"> Biotechnology (TC) (0.75) Skills USA Math Team Architectural Design (1.0) World Languages 	<ul style="list-style-type: none"> Preparation for College & Business Communications (1.0) Engineering Design & Development (1.0) 	Required Grades 9-12 15.0 Minimum Electives..... 8.5 Credits for Graduation 23.5

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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	Baccalaureate Degree		Associate Degree Programs		Certificate/License
		<p><u>University of Wisconsin – Madison</u></p> <ul style="list-style-type: none"> • Biomedical Engineering • Chemical Engineering • Civil Engineering • Computer Engineering • Electrical Engineering • Engineering Mechanics • Engineering Physics • Geological Engineering • Industrial Engineering • Materials Science & Engineering • Mechanical Engineering • Naval Science • Nuclear Engineering <p><u>University of Wisconsin – Stout</u></p> <ul style="list-style-type: none"> • Computer Engineering • Engineering Technology • Manufacturing Engineering 	<p><u>University of Minnesota – Twin Cities</u></p> <ul style="list-style-type: none"> • Aerospace Engineering & Mechanics • Biomedical Engineering • Bioproducts & Biosystems Engineering • Chemical Engineering • Civil Engineering • Computer Engineering • Electrical Engineering • Geological Engineering • Materials Science & Engineering • Mechanical Engineering <p><u>University of Wisconsin – Platteville</u></p> <ul style="list-style-type: none"> • Agribusiness—Engineering Technology • Civil Engineering • Electrical Engineering • Engineering Physics • Environmental Engineering • Industrial Engineering • Mechanical Engineering • Software Engineering 	<p><u>Chippewa Valley Technical College</u></p> <ul style="list-style-type: none"> • Agriscience Technician • Civil Engineering Technician • Nanoscience Technology 	
	<p>Adult Apprenticeship, On-the-Job Training or Other</p>	<p>Careers</p> <ul style="list-style-type: none"> • Aeronautical Engineer • Aerospace Engineer • Agricultural Engineer • Agricultural Technician • Application Engineer • Architectural Engineer • Automotive Engineer • Biomedical Engineer • Biotechnology Engineer • CAD Technician • Chemical Engineer 	<p>Employment Options</p> <ul style="list-style-type: none"> • Civil Engineer • Communications Engineer • Computer Engineer • Computer Programmer • Construction Engineer • Electrical Engineer • Electronics Technician • Geothermal Engineer • Industrial Engineer • Manufacturing Engineer • Manufacturing Technician 	<ul style="list-style-type: none"> • Marine Engineer • Mechanical Engineer • Metallurgist • Mining Engineer • Nuclear Engineer • Petroleum Engineer • Product/Process Engineer • Survey Technician • Systems Engineer • Transportation Engineer 	