

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	
High School	Grade 9	• English 9 (1.0) -OR- • Enriched English 9 (1.0)	• Algebra I (1.0)	• Earth Science (0.5)	• US History (0.5)	• Level 1 Physical Education (0.5) • Health 9 (0.5)	<u>Physical Science</u> • AP Physics C: Electricity & Magnetism (1.0) • AP Chemistry (1.0)	• 11-12 • 10-12 4.0 Required <u>2.0</u> Elective 6.0Total
	Grade 10	• English 10 (1.0) -OR- • Enriched English 10 (1.0)	• Geometry (1.0) -OR- • Enriched Geometry (1.0)	• Biology (1.0)	• World Studies (1.0) -OR- • AP European Studies (1.0)	• Level II Physical Education (0.5)	<u>Life & Environmental Science</u> • Environmental Science A (0.5) • Environmental Science B (0.5) • Introduction to Human Anatomy & Physiology (0.5)	• 10-12 • 10-12 4.5 Required <u>1.5</u> Elective 6.0Total
	Grade 11	• English 11 (1.0) -OR- • AP Language & Composition (1.0) (recommended)	• Algebra II/Trigonometry (1.0) -OR- • Enriched Algebra II/Trigonometry (1.0)	• Chemistry (1.0)	• Government (0.5) -OR- • AP United States Government and Politics (0.5)	• Level III Physical Education (0.5)	• Biotechnology (TC) (0.75) • AP Biology (1.0)	• 10-12 • 10-12 4.0 Required <u>2.0</u> Elective 6.0Total
	Grade 12	• English 12 (1.0) -OR- • AP Literature & Composition (1.0)	• AP Statistics(1.0) -OR- • Precalculus (1.0)	• Physics (1.0) -OR- • AP Physics C: Mechanics (1.0) (Precalculus prerequisite)	• AP Psychology (1.0) -OR- • Psychology (0.5) -OR- • Sociology/Social Issues (0.5)	• AP Economics (0.5) -OR- • Economics (0.5)	<u>Earth & Space Science</u> • Oceanography/Meteorology (0.5) • Astronomy/Geology (0.5)	• 9-12 • 9-12
							<u>Other</u> • Principles of Engineering (1.0) -OR- Digital Electronics (1.0) • Preparation for College & Business Communications (1.0)	• 11-12 • 10-12 • 11-12 2.5 Required <u>3.0</u> Elective 5.5Total
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	• Skills USA	• AP Calculus AB (1.0)	• World Languages	
AS	Advanced Standing			Required Grades 9-12.....				
TC	Transcripted Credit			Minimum Electives.....				
YO	Youth Options	(1.0)	Course is worth 1.0 credit	Credits for Graduation				
	(0.5) Course is worth 0.5 credit			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 – Eau Claire</u></p> <ul style="list-style-type: none"> Biochemistry/Molecular Biology Biology Chemistry Education Geology Physics <p><u>University of Wisconsin – Stout</u></p> <ul style="list-style-type: none"> Applied Science Science Education <p><u>University of Minnesota – Twin Cities</u></p> <ul style="list-style-type: none"> Astrophysics Chemistry Earth Sciences Ecology, Evolution, and Behavior Environment and Natural Resources Environmental Science Microbiology Physics Plant Biology 	<p><u>University of Wisconsin – Madison</u></p> <ul style="list-style-type: none"> Biochemistry Biology Forest Science Genetics Microbiology Plant Pathology Soil Science Anthropology Astronomy-Physics Atmospheric & Oceanic Sciences Biochemistry Biological Aspects of Conservation Biology Botany Chemistry Chemistry Course Geography Geology and Geophysics Microbiology Molecular Biology Physics Zoology 	<p><u>Chippewa Valley Technical College</u></p> <ul style="list-style-type: none"> Alcohol and Other Drug Abuse Associate Clinical Laboratory Technician Diagnostic Medical Sonography Electromechanical Technology Liberal Arts – Associate of Science Nanoscience Technology Nursing Assistant Nursing Associate Degree Paramedic Technician Physical Therapist Assistant Radiography Respiratory Therapy 	<p><u>Chippewa Valley Technical College</u></p> <ul style="list-style-type: none"> EMT 	
	<p>Adult Apprenticeship, On-the-Job Training or Other</p>	<p>Careers</p> <p><u>Physical Science</u></p> <ul style="list-style-type: none"> Analytical Chemist Anthropologist Chemist Nuclear Chemist/Technician Physicist <p><u>Any Science Area</u></p> <ul style="list-style-type: none"> Research Technician Science Teacher Scientist 	<p>Employment Options</p> <p><u>Life & Environmental Science</u></p> <ul style="list-style-type: none"> Biologist Botanist Ecologist Environmental Scientist Geneticist Marine Scientist Nanobiologist Zoologist 	<p><u>Earth & Space Science</u></p> <ul style="list-style-type: none"> Archeologist Astronomer Astrophysicist Atmospheric Scientist Geologist Geophysicist Meteorologist 	