



Biotechnology Research & Development Pathway

Health Science 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		
	Required Credits	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	<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"> • Health Science Occupations (0.5) 	<ul style="list-style-type: none"> • 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) 	<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) 			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"> • Algebra II & Trigonometry (1.0) -OR- • Enriched Algebra II/Trigonometry (1.0) 	<ul style="list-style-type: none"> • Chemistry (1.0) • Human Anatomy & Physiology (0.5) – <i>take during or after Medical Terminology</i> 	<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"> • Medical Terminology (0.75) (YO at CVTC) 	<ul style="list-style-type: none"> • 11-12 	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 Statistics (1.0) • Pre-Calculus (1.0). 	<ul style="list-style-type: none"> • Biotechnology (TC) (0.75) • AP Chemistry (1.0) • AP Biology (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) 				
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 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			Credits Required Grades 9-12 15.0 Minimum Electives..... 8.5 Credits for Graduation 23.5		<ul style="list-style-type: none"> • World Languages through level III (1.0 each) • American Sign Language I (1.0) • Accounting I (0.5) • Personal Law (0.5) • Microsoft Office Suite (TC) (0.5) • Health Science Youth Apprenticeship (1.0) 				



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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
	<u>University of Wisconsin - Madison</u> <ul style="list-style-type: none"> Biochemistry Biology Genetics Microbiology Molecular Biology Pharmacology & Toxicology 	<u>University of Minnesota – Twin Cities</u> <ul style="list-style-type: none"> Biochemistry Biology Genetics, Cell Biology, and Development Microbiology <u>University of Wisconsin – Stout</u> <ul style="list-style-type: none"> Applied Science (Biotechnology) 	<u>Chippewa Valley Technical College</u> <ul style="list-style-type: none"> Nanoscience Technology Pharmacy Technician <u>Madison Area Technical College</u> <ul style="list-style-type: none"> Biotechnology Laboratory Technician 	<u>Chippewa Valley Technical College</u> <ul style="list-style-type: none"> Biotechnology <u>Madison Area Technical College</u> <ul style="list-style-type: none"> Bioinformatics 	
	Adult Apprenticeship, On-the-Job Training or Other		Employment Options		
		Careers <ul style="list-style-type: none"> <u>Baccalaureate Degree</u> <ul style="list-style-type: none"> Biochemist Bioinformatics Associate Bioinformatics Scientist Bioinformatics Specialist Biomedical Chemist Biostatistician Cell Biologist Clinical Trials Research Associate Clinical Trials Research Coordinator 	<ul style="list-style-type: none"> <u>Baccalaureate Degree (continued)</u> <ul style="list-style-type: none"> Geneticist Microbiologist Molecular Biologist Pharmaceutical Scientist Regulatory Affairs Specialist Research Assistant Research Associate Research Scientist Toxicologist 	<ul style="list-style-type: none"> <u>Associate Degree</u> <ul style="list-style-type: none"> Animal Services Technician Animal Services Technologist Data Entry Clerk Lab Assistant-Genetics Lab Technician Maintenance and Instrument Technician Process Technician Quality Assurance Technician Quality Control Technician 	