

The University of Montana Western
2016-2017 Catalog
Bachelor of Science: Biology & Secondary Education Double Major

Name	Evaluated by
ID #	Date

Institution	Abbreviated
Institution	Abbreviated
Institution	Abbreviated

Bachelor of Science: Biology & Secondary Education Double Major **128 Total Required Credits**

General Education Requirements (printable worksheet available at advising.umwestern.edu) **31-32 Credits**

The following required courses are general education requirements specific to this degree. They will satisfy these particular general education categories:

Math 100-Level (category located on page 1 of your general education worksheet)

_____	STAT 121	Probability	_____	4	For Office Use
		<i>Prereq: M 095 or appropriate ACT or SAT score.</i>			

Humanities: Literary & Artistic Studies (category located on page 2 of your general education worksheet)

_____	PHL 241	History of Philosophy and Science	_____	4	
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Natural Sciences (category located on page 2 of your general education worksheet)

_____	BIOB 160	Principles of Living Systems	_____	4	
		<i>Prereq: M 095 or appropriate ACT or SAT score.</i>			

_____	CHMY 141	College Chemistry I	_____	4	
		<i>Prereq: M 095 or appropriate ACT or SAT score; (high school chemistry or CHMY 121 recommended).</i>			

Biology Major Core **52 Credits**

_____	BIOB 170	Principles of Biology Diversity	_____	4	
		<i>Prereq: M 095 or appropriate ACT or SAT score; (BIOB 160 recommended).</i>			

_____	BIOB 260	Cellular & Molecular Biology	_____	4	
		<i>Prereq: BIOB 160.</i>			

_____	BIOB 375	General Genetics	_____	4	
		<i>Prereq: BIOB 260 and STAT 121.</i>			

_____	BIOB 420	Evolution	_____	4	
		<i>Prereq: Junior/Senior standing and BIOB 375.</i>			

_____	BIOE 370	General Ecology	_____	4	
		<i>Prereq: BIOB 170.</i>			

_____	BIOO 220	General Botany	_____	4	
		<i>Prereq: BIOB 160.</i>			

_____	CHMY 143	College Chemistry II	_____	4	
		<i>Prereq: CHMY 141.</i>			

_____	CHMY 321	Organic Chemistry I	_____	4	
		<i>Prereq: CHMY 143.</i>			

_____	CHMY 323	Organic Chemistry II	_____	4	
		<i>Prereq: CHMY 321.</i>			

Select **one** of the following: (4 credits)

_____	M 161	Survey of Calculus	_____	4	
		<i>Prereq: M 095 or appropriate ACT or SAT score.</i>			

_____	M 171	Calculus I	_____	4	
		<i>Prereq: M 112; or high school trigonometry and M 095 or appropriate ACT or SAT score.</i>			

Select **two** of the following: (8 credits)

_____	PHSX	220	Physics I	_____	4	<input type="text"/>	<input type="text"/>
			<i>Prereq: M 161 or M 171.</i>				
_____	PHSX	222	Physics II	_____	4	<input type="text"/>	<input type="text"/>
			<i>Prereq: M 161 or M 171.</i>				
_____	PHSX	224	Physics III	_____	4	<input type="text"/>	<input type="text"/>
			<i>Prereq: M 161 or M 171.</i>				

Select **one** of the following: (4 credits)

_____	STAT	217	Intermediate Statistical Concepts	_____	4	<input type="text"/>	<input type="text"/>
			<i>Prereq: STAT 121.</i>				
_____	STAT	233	Biostatistics	_____	4	<input type="text"/>	<input type="text"/>
			<i>Prereq: STAT 121.</i>				

Educational Professional Core

36 Credits

See page 138 in the 2016-17 Catalog for recommended course sequence

_____	EDU	201	Intro to Education with Field Experience	_____	4	<input type="text"/>	<input type="text"/>
_____	EDU	222	Educational Psychology and Child Development	_____	4	<input type="text"/>	<input type="text"/>
_____	EDU	382	Assessment, Curriculum, & Instruction	_____	4	<input type="text"/>	<input type="text"/>
			<i>Prereq: EDU 201; and EDU 222.</i>				
_____	EDU	306	School Law & Advocacy for all K-12 Learners	_____	4	<input type="text"/>	<input type="text"/>
			<i>Prereq: EDU 382; and TEP.</i>				
_____	EDU	311	Cultures, Diversity, & Ethics in Global Ed	_____	4	<input type="text"/>	<input type="text"/>
			<i>Prereq: TEP.</i>				
_____	EDU	371	Foundation of Ed Tech in Secondary Schools	_____	2	<input type="text"/>	<input type="text"/>
			<i>Prereq: TEP.</i>				
_____	EDU	444	Classroom Management in Secondary Schools	_____	4	<input type="text"/>	<input type="text"/>
			<i>Prereq: TEP; taken in semester prior to student teaching.</i>				
_____	EDU	481	Content Area Literacy	_____	2	<input type="text"/>	<input type="text"/>
			<i>Prereq: EDU 382; and TEP.</i>				
_____	EDU	497S	Methods: 5-12 Science	_____	4	<input type="text"/>	<input type="text"/>
			<i>Prereq: TEP; preferably taken in semester prior to student teaching.</i>				
_____	HEE	340	Methods of Health Education	_____	4	<input type="text"/>	<input type="text"/>

Student Teaching

8 Credits

_____	EDU	495S	Student Teaching 5-12	_____	8		
			<i>Prereq: Admission to student teaching and consent of Director of Field Experience.</i>				

Electives to reach 128 total credits

0-1 Credits

Subject	Course #	Title			

Total Earned Credits

First Aid & CPR Certification (Current certification in first aid & safety including child and adult CPR and ARD, and infant CPR.

ECP 100 First Aid & Safety (1) is recommended).

Information & Technology Exam (If a student does not pass the UMW Information & Technology exam upon entrance to UMW,

the student will take COMS 115 Computer Basics for Educators (4) to assist in passing the exam. The exam must be passed prior to admission to the Teacher Education Program - TEP).

Secondary Education Strongly Recommended Courses

_____	BIOH	365	Human Anatomy & Physiology I for Health Professionals	_____	4		
_____	BIOH	370	Human Anatomy & Physiology II for Health Professionals	_____	4		
_____	BIOM	260	General Microbiology	_____	4		