

The University of Montana Western
2015-2016 Catalog

Bachelor of Science: Mathematics

Name	Evaluated by
ID #	Date
Institution	Abbreviated
Institution	Abbreviated
Institution	Abbreviated

Bachelor of Science: Mathematics

120 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 _____
Prereq: M 095 or equivalent ACT score 22+ or SAT score 520+.

Institution	Accepted
For Office Use	

Mathematics Major Core

48 Credits

_____ M 171 Calculus I _____
Prereq: M 112 or evidence of grade C- or higher in high school trigonometry.

_____ M 172 Calculus II _____
Prereq: M 171 grade B- or higher

_____ M 210 Intro to Math Software _____
Prereq: Any 100-400 level math course grade B- or higher.

_____ M 221 Intro to Linear Algebra _____
Prereq: M 171 and M 210 grade B- or higher.

_____ M 273 Multivariable Calculus _____
Prereq: M 172 grade B- or higher.

_____ M 274 Intro to Differential Equations _____
Prereq: M 172 and M 210 grade B- or higher.

_____ M 329 Modern Geometry _____
Prereq: Sophomore standing and meet the proficiency standards.

_____ M 343 Foundations of Mathematics _____
Prereq: Sophomore standing and meet the proficiency standards.

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

_____ STAT 217 Intermediate Statistical Concepts _____
Prereq: STAT 121 grade C- or higher.

_____ STAT 233 Biostatistics _____
Prereq: STAT 121 grade C- or higher.

_____ STAT 422 Mathematical Statistics _____
Prereq: STAT 121 and M 172 grade B- or higher.

Select **three** of the following: (12 credits)

_____ M 414 Deterministic Models _____
Prereq: M 172 and M 210 grade B- or higher.

_____ M 435 Advanced Calculus _____
Prereq: M 172 and M 343 grade B- or higher

_____ M 472 Intro to Complex Analysis _____
Prereq: M 273 and M 343 grade B- or higher.

_____ M 431 Abstract Algebra _____
Prereq: M 343 grade B- or higher.

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_____	M	444	Advanced Number Theory	_____	4	<input type="text"/>	<input type="text"/>
			<i>Prereq: M 343 grade B- or higher.</i>				
_____	M	494	Seminar/Workshop	_____	4	<input type="text"/>	<input type="text"/>
			<i>Prereq: M 343 grade B- or higher and other (topic dependent) courses set by instructor.</i>				
_____	M	499	Senior Project/Thesis	_____	4	<input type="text"/>	<input type="text"/>
			<i>Prereq: Senior Standing, c/I, c/pc, and c/vc.</i>				
_____	STAT	433	Stochastic Modeling	_____	4	<input type="text"/>	<input type="text"/>
			<i>Prereq: STAT 121 and M 210 grade B- or higher.</i>				

Mathematics Option Areas (Choose one) (printable worksheets are available at advising.umwestern.edu)

28 Credits

Students may choose from the following or develop their own option by using college level courses to bring the total credits for the degree to 120.

_____	Mathematical Biology Option	28
_____	Mathematical Ecology Option	28
_____	Mathematical Geology Option	28
_____	Other Option	28-40

Electives to reach 120 total credits

0-13 Credits

Subject	Course #	Title			

_____ **Total Earned Credits**