



Winona State University  
Four-Year Program Map

Created on 7/5/2023  
Effective Fall 2023

Program: **Mathematics (BS MATH)**  
Emphasis (optional): **Supplementary Mathematics Option**

Fall Semester				Spring Semester		
	Course	Requirement Met	SH	Course	Requirement Met	SH
<b>Year 1</b>	ENG 111 College Reading & Writing or CMST 191 or 192	GE Goal 1	3-4	ENG 111 College Reading & Writing or CMST 191 or 192	GE Goal 1	3-4
	MATH 212 Calculus I	Major/GE Goal 4	4	MATH 213 Calculus II	Major	4
	STAT 210 Statistics	Major/GE Goal 4	3	MATH 247 Discrete Math OR CS 234 Algorithms & Problem-Solving I	Major	3-4
	General Education Course	GE Goal 3	3	General Education Course (Lab)	GE Goal 3	4
	OR 100 Orientation	Recommended	1			
<i>NOTE:</i>				<i>NOTE:</i>		
<b>First-Year Fall Semester Credit Hour Total</b>			<b>14-15</b>	<b>First-Year Spring Semester Credit Hour Total</b>		
<b>Year 2</b>	MATH 311 Linear Algebra	Major	4	MATH 313 Differential Equations	Major/CAI	4
	MATH 312 Multivariable Calculus	Major/CAI	4	MATH 327 Foundations of Mathematics	Major/WI	4
	DSCI 210 Data Science OR CS 275 Math Foundations/Algorithms	Major	3-4	General Education Course	GE Goal 5	3
	General Education Course	GE Goal 5	3	General Education Course	GE Goal 8	3
				General Education Course	GE Goal 10	3
<i>NOTE:</i>				<i>NOTE: Students must earn 40 S.H. credits of 300 &amp; 400 Level Courses.</i>		
<b>Second-Year Fall Semester Credit Hour Total</b>			<b>14-15</b>	<b>Second-Year Spring Semester Credit Hour Total</b>		
<b>Year 3</b>	MATH 347 Number Theory OR Major Elective*	Major	3	MATH 447 Abstract Algebra I OR Major Elective*	Major/OI	3-4
	MATH 452 Advanced Calculus I	Major/WI	4	Major Elective* OR MATH 337 Probability	Major	3
	Applications of Math Elective**	Major	3	Applications of Math Elective**	Major	3
	General Education Course	GE Goal 6	3	MATH 395 Professional Skills for Mathematics	Major	2
	General Education Course	GE Goal 9	3	MATH 490 Independent Project ***	Major	0-1
				General Education Course	GE Goal 6	3
<i>NOTE: *There are a variety of courses that can be taken, please refer to DARS to see a list of all courses offered. **There are a variety of courses that can be taken, please refer to DARS to see a list of all courses offered.</i>				<i>NOTE: ***3 SH of MATH 490 (Independent Project) required. This course must be arranged with a faculty advisor and may be broken up across semesters. Some faculty advisors prefer to start in third year. A summer internship between third and fourth years may also satisfy the requirement. Students should coordinate with their academic advisor.</i>		
<b>Third-Year Fall Semester Credit Hour Total</b>			<b>16</b>	<b>Third-Year Spring Semester Credit Hour Total</b>		
<b>Year 4</b>	Major Elective* OR STAT 450 Intro to Mathematical Statistics I	Major	3-4	Major Elective*	Major	3
	Major Elective*	Major	3	MATH 495 Communication of Independent Project	Major	1
	MATH 490 Independent Project***	Major	1-2	Math 490 Independent Project***	Major	0-1
	General Education Course	GE Goal 7	3	Physical Development & Wellness	PDW	1
	General Education Course	GE Goal 5	3	General Education Course	GE Goal 6	3
	Physical Development & Wellness	PDW	1	Major Elective or General Elective Course	Major/Gen Elect	3
				Major Elective or General Elective Course	Major/Gen Elect	3
<i>NOTE:</i>				<i>NOTE:</i>		
<b>Fourth-Year Fall Semester Credit Hour Total</b>			<b>14-16</b>	<b>Fourth-Year Spring Semester Credit Hour Total</b>		

Total Credit Hours (SH): 120