

University Name: Winona State University

Award: BA Degree: Mathematics (Minor required)

Total Credits: 60

3 rd Year/Fall Semester		
Course No.	Course Name	Credits
MATH 242	Linear Algebra (if not transferred)	4
MATH 247 or CS 275	Discrete Mathematics or Mathematical Foundations of Algorithms (if not transferred)	3
STAT 210	Statistics (if not transferred)	3
	Minor course	3
	300-400 level Minor or Elective course	3-4
Semester Credits Total		16-17
<p>Notes: WSU requires 2 credits of Physical Development & Wellness and 12 credits of upper-level intensive courses. Intensives are often included in major course requirements; check with your advisor. A minimum of 40 credits at the 300-400 level is required to earn a degree. A grade of "C" or better is required in major courses. The BA major requires a minor or major in a different program or department. The BA major is designed for students who want to combine complementary interests and skills. Students will learn to apply mathematics to another field or area to set themselves apart from others when competing for future employment or graduate work.</p>		

3 rd Year/Spring Semester		
Course No.	Course Name	Credits
MATH 313	Differential Equations (if not transferred)	3
MATH 327	Foundations of Mathematics	4
MATH 307 or MATH/STAT/DSCI	History of Math or Mathematics Elective	3
	300-400 level Minor course	3-4
Univ Req	Physical Development/Wellness	2-3
Semester Credits Total		16-17
<p>Notes: Other fields that pair well with the BA in Mathematics are computer science, statistics, physics, engineering, biology, and economics. A minor in any discipline is acceptable. History of Math offers an optional travel study to London, UK.</p>		

4 th Year/Fall Semester												
Course No.	Course Name	Credits										
MATH 452	Advanced Calculus I	4										
MATH 302 or MATH/STAT/DSCI	Chaos Theory or Mathematics Elective	3										
MATH or Minor	300-400 level Mathematics Elective (optional) or Minor Course	3										
	Minor or Elective course	3-4										
Semester Credits Total		13-14										
<p>Mathematics Electives include (but are not restricted to):</p> <table border="0"> <tr> <td>MATH 337 Probability</td> <td>MATH 347 Number Theory</td> </tr> <tr> <td>MATH 317 Complex Variables</td> <td>MATH 462 Topology</td> </tr> <tr> <td>MATH 413 Advanced Applied Math</td> <td>DSCI 325 Structured Data</td> </tr> <tr> <td>STAT 360 Regression Analysis</td> <td>DSCI 425 Supervised Learning</td> </tr> <tr> <td>STAT 365 Experimental Design/Analysis</td> <td>DSCI 415 Unsupervised Learning</td> </tr> </table>			MATH 337 Probability	MATH 347 Number Theory	MATH 317 Complex Variables	MATH 462 Topology	MATH 413 Advanced Applied Math	DSCI 325 Structured Data	STAT 360 Regression Analysis	DSCI 425 Supervised Learning	STAT 365 Experimental Design/Analysis	DSCI 415 Unsupervised Learning
MATH 337 Probability	MATH 347 Number Theory											
MATH 317 Complex Variables	MATH 462 Topology											
MATH 413 Advanced Applied Math	DSCI 325 Structured Data											
STAT 360 Regression Analysis	DSCI 425 Supervised Learning											
STAT 365 Experimental Design/Analysis	DSCI 415 Unsupervised Learning											

4 th Year/Spring Semester		
Course No.	Course Name	Credits
MATH 447	Abstract Algebra I	4
MATH	Advanced Study Elective*	3
MATH or Minor	300-400 level Mathematics Elective (optional) or Minor course	3
	Minor or Elective course	3-4
Semester Credits Total		13-14
<p>*Advanced Study Electives include: MATH 453 Advanced Calculus II MATH 448 Abstract Algebra II</p>		